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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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THE MERGER STEAMSHIP LINES.

Charles H. Cramp, the Philadelphia shipbuilder says he sees in the Morgan steamship trust a menace to the interests of American shipbuilders. He said the motive of Mr. Morgan and his associates in the enterprise was doubtless patriotic.

"But," he continued, "it is nevertheless regretable that the vessels of the combination must, in the main, fly the flag of foreign nations, and that in case of war between the United States and the power whose flag they fly, vessels owned so largely by American citizens can be taken possession of by the enemy and utilized against the country of which their owners are citizens.

"Nor does the seriousness of the situation end there. Most of the vessels belonging to the lines so consolidated are not of the highest class.

"Being compelled to compete with the great German lines and their magnificent steamers, the promoters of the merger are left with but two alternatives—either to swallow the German lines or be swallowed by them, or to build faster and more magnificent vessels than theirs.

"What, then, will be the natural result of this merger? American capital, seeking to place its investment on a par with those from abroad, will proceed to equip its lines with splendid express steamers of great cost and magnificence, and will build most if not all of them abroad. They will be built principally in English shipyards, and these shipyards will be developed by American capital.

"If Congress will pass a law to make up in some degree the difference in the cost of operating American ships and those under a foreign flag, as contemplated in the subsidy bill, the new ships of the merger lines will be built in this country and not abroad. Otherwise American capital will develop American shipyards and the dream of an American merchant marine is over.

"After all, what the American people are interested in mostly, unless I mistake their feelings, is the growth of the American shipyards, the employment of American labor and the utilization of American materials, resulting in the construction of American ships to fly the American flag."

Mr. Griscom's attention was called to the statement of Charles H. Cramp, the Philadelphia shipbuilder. Mr. Cramp is reported to have declared that the consolidation of English, German and American steamship companies on the lines planned by Mr. Morgan would work harm to American shipbuilding. Mr. Griscom said:

"I think Mr. Cramp's arguments have been very thoroughly answered these last few days, in fact, I have perhaps unwittingly answered many of them."

"But, Mr. Cramp seems to think that the situation, so far as the American shipbuilder is concerned, is really dangerous?" it was suggested.

"Then let the American shipbuilder wake up and do something," said Mr. Griscom. "There's plenty for him to do."

Mr. Griscom characterized as "imaginary," the reports coupling his name with the presidency of the Morgan steamship combination.

SEARCHING FOR THE MAGNETIC POLE.

The north magnetic, not the north geographical, pole is the objective point of Capt. Amundsen, the Norwegian Arctic explorer. He proposes to fit out a ship and sail north this spring for the purpose of re-locating the north magnetic pole and verifying and completing the observations made by Sir John Ross in 1831. The latter determined this important point to be in latitude 70 degrees, 5 minutes and 17 seconds, and in longitude 96 degrees, 46 minutes and 45 seconds. Thus, according to this, the magnetc pole is on the North American continent, a few miles above the Arctic circle. Still more definitely it is on the shores of a peninsula known as Booth Island, with the Gulf of Boothia on the east and McClintock channel on the west. Clustered east, west and north is a group of Arctic Islands.

This is the location given by Sir John Ross, but, as both the north and south magnetic poles change their geographical position, and as there is reason to believe that the work of determination was not entirely complete, it will be seen that Capt. Amundsen's proposed expedition is of more than ordinary importance, and may be of great scientific and practical value. Even those who cannot sympathize with the aims of the seekers of the north and south poles, and who question the utility of such ventures, must surely view this expedition with interest and approval. Capt. Amundsen, who proposes to undertake it, was a member of the Gerlach expedition to the Antarctic in 1897, and is, therefore, peculiarly well fitted for the task he has imposed on himself. He intends to devote four years, if necessary, to it, and he has already purchased and is fitting out a vessel designed specially for Arctic seas.

Capt. Amundsen's expedition will start from West Greenland.

TONNAGE OF LAKE VESSELS.

The following shows the number and tonnage of vessels of all kinds owned in the different customs districts on the lake on June 30, 1901:

Ports.	Customs Districts.	No.	Gross Tonnage
Buffalo	Buffalo Creek	303	145,690
Cleveland	Cuyahoga	336	440,313
Port Huron	Huron	298	146,753
Detroit	Detroit	218	128,643
Milwaukee	Milwaukee	295	83,362
Chicago	Chicago	222	65,482
Plattsburg	Champlain*	461	47,479
Marquette	Superior	146	32,603
Sandusky	Sandusky	104	87,011
Grand Haven	Michigan	240	37,879
Erie	Erie	57	42,290
Ogdensburg	Oswegatchie	47	24,043
Oswego	Oswego	38	7,184
Toledo	Miami	64	19,069
Suspension Bridge	Niagara	22	17,694
Burlington	Vermont	26	4,195
Rochester	Genesee	11	613
Cape Vincent	Cape Vincent	73	4,122
Duluth	Duluth	287	371,776
Dunkirk	Dunkirk	5	93
Totals		3,253	1,706,294

*Largely canal boats.

ORGANIZING ATLANTIC TRAFFIC.

The J. P. Morgan consolidation of several leading trans-atlantic steamship lines, reports of which were strenuously denied some time ago, is now acknowledged to be a fact. Six of the lines are admitted to be in the combination, and it is understood that a "working agreement" will be reached with the other trans-atlantic companies, so that the whole of the lines, American, English, German and French, will be practically operated as one, so far as their attitude toward the traveling and shipping public is concerned.

IMPROVED COAL HANDLING FACILITIES AT MANITOWOC AND SHEBOYGAN.

In leasing the Wisconsin Central docks at Manitowoc, which the C. Reiss Coal Co., of Sheboygan, will operate after May 1, a new field is practically opened up for the company, which expects to be able to handle a largely increased tonnage as their connections at St. Paul and Minneapolis have splendid facilities for taking care of it. The Reiss company contemplate large improvements in all the northwestern docks, principally at Sheboygan, however. Lumber and materials are being shipped daily for an immense new soft coal shed to be erected at Manitowoc, which is to occupy a space of 350x600 feet. Moensted & Co., of Milwaukee, have been awarded the contract for 1,500 concrete foundations, J. M. Peppard & Co., of Minneapolis, will build the new trestle and hoppers. There will be two hoppers, each 600 feet long. The moveable bridge spanning these hoppers will be 350 feet long and will be built by the American Bridge & Iron Co. At each end of the bridge will be a 100 horse power motor. The entire plant is to be operated by electricity. When completed this will one of the largest coal docks on the Great Lakes. The company's business at Sheboygan and at Manitowoc will be nearly doubled that of heretofore, and this means an immense expenditure. The company expects to have all the improvements completed by July 1.

ANOTHER NEW THEORY ON COAL FORMATION.

Mr. J. R. Heckman, Conner, Pa., writes as follows to the Johnstown Tribune, which is worthy the consideration of mining engineers: The popular theory with geologists in the past has been that the vegetation from which coal was formed grew upon inland seas or vast savannahs. So many things seem to stand in the way of a clear insight into the matter from this point of view that I incline to the belief that the coal-forming era probably extended over the entire surface of the earth—while it was somewhat larger less dense, the water quite warm—long before the cooling and shrinkage process had begun to form mountains and valleys, to divide the land from the water, and make the earth look old and wrinkled. At about that period is when active erosion began its destructive work, which seems to have been accelerated by a change of the earth's polarity. This theory appears tenable, and preferable to the "ice cap" of glacial epoch.

The principal reasons that led me to assume that coal probably was deposited over the entire surface of the earth are these:

First—There is a striking similarity existing among the coals all over the world; often there is more marked difference close by than in widely separated coal fields.

Second—In places, by local metamorphism, the sandstones are changed to quartziles, the shale to slate, and the bituminous coal to anthracite.

Third—In some coal fields the same group of coal seams run through the various changes produced by metamorphism and exhibit bituminous, coking and non-coking, semi-anthracite and anthracite; the graduation from bituminous to semi-anthracite and anthracite must be due to position with relation to dynamic influences.

Fourth—The component strata of the coal measures vary in character and relative thickness from one part of a coal field to another.

Still more variable are the coal seams. The difference in quality between two benches of a seam often are greater than that between two separate seams. So that identification of the several seams of any group exposed in different portions of a region is very difficult, and, indeed, often impossible.

I submit this proposition:

If we can believe that coal probably was deposited over the entire surface of the earth, deduct the known amount of coal yet remaining, and we will indicate how active and destructive erosion has been.

My object is to stimulate the latent energy of progressive thought, hoping thereby to throw more light upon and penetrable, probably by reason of being overshadowed by simplify some things that have appeared obscure and imour ignorance.

A movement is on foot to combine the principal towing companies of New York harbor into an association, with the idea of controlling the towing business and securing a uniform schedule of rates.

CHICAGO.

Special Correspondence to The Marine Record.

Four large steamers grounded on Washington street tunnel, and stopping navigation for about a week is the record for the south branch, and the season barely opened yet. It is recommended that vessels load no deeper than 16½ feet.

The steamer Parnell, which has been on Washington street tunnel four days, will probably have to wait there until the settlement of the strike, if it takes all summer, as she cannot be released without the assistance of tugs.

Hereafter no vessel entering the Chicago river drawing more than 16½ feet of water will be allowed to pass the Lake street bridge without special permission of the harbormaster. The same rule applies to vessels loading up the river with regard to the Madison street bridge. These orders, issued by Harbormaster John McCarthy, are designed to prevent the grounding of the boats on the crown of the Washington street tunnel. Wednesday was another day of blockade on the south branch, for the big coal laden steamer Parnell still sticks on the top of the troublesome tunnel.

The City of Venice was eventually floated off the crown of the Washington street tunnel after being there two days and plugged at by seven tugs. A long wooden steamer hanging on the crown of a tunnel and all the steam power possible pulling on her can do the structure no good, but apart from this, she held up several loaded vessels, in fact all commerce on the south branch. The loaded wooden steamer Wallula grounded directly after the release of the Venice, and she was followed by another wooden steamer, the Charles S. Parnell, and with a southerly wind she neaped one-half a foot. No attempt was made to float the Parnell on Monday, but it was simply a case of waiting until the wind went around to the northward. In the meantime navigation up the south branch remained blocked.

The following meteorological observations are furnished by the office of the U. S Weather Bureau, Chicago, for the week ending April 23. Prevailing wind direction for the week S.W.; highest velocity 66 miles from the S.W. on the 22d. Mean temperature for the week 54. highest temperature 83, on the 21st; lowest 36 on the 20th.

The wind guage at the Weather Bureau office registered 60 miles an hour in the squalls on Tuesday. The water was low in the river and the C. S. Parnell was still hung on the crown of the Washington street tunnel, stopping traffic in the south branch, when the gale veers from S.W. to N.W., as it should do according to the law of storms, etc., it is expected that she will float.

The steamer Gordon Campbell has been sold by John Barry to Capt. Patrick Bowe, of Chicago. She will probably be run in the salt trade between Manistee and Chicago. The consideration is said to be $15,000. The Campbell is a wooden steamer of 1,101 gross tons, built in Detroit in 1871, and re-built in 1888, she is still on her first letter rating, A2, and valued for insurance purposes at $20,000.

The steamer Joseph L. Hurd will be attached for breach of contract when she arrives in port either here or down in Lake Erie. Marine Attorney W. E. Wolseley, who is acting for S. R. Chamberlain & Co., of this city, has prepared to levy on her at either port. The Hurd was under charter to the foregoing company during the season, and it is charged that her owners lived up to their contract in very few instances. She will be attached for $5,000.

The lake-built steamers Northman and Northwestern have been chartered for five years for the Texas oil trade, at the rate of forty-five cents per barrel. Both steamers are at the Morse Iron Works and Dry Dock Co.'s yards, where they are being fitted with tanks, and otherwise prepared for the trade which they will be engaged in. It will be remembered that these steamers were built at the Chicago yards of the American Ship Building Co., for trans-Atlantic service.

The department has approved of the removal of the wreck of the Swain, which was burned to the water's edge and sunk near Rains' dock, "Soo" river, below the dike, on December 16, 1898. Since then it has been a menace to navigation. Divers will be employed and the wreck will probably be blown up by dynamite and then removed. By the burning of the tug Swain, Fireman John Sylvester was burned to death, and several of the crew had narrow escapes, the engineer having his hands severely burned.

DETROIT.

Special Correspondence to The Marine Record.

A revision, in colors, of chart No. 3, Saint Mary's river, has just been issued and is now on sale at the U S. Lake Survey Office, 33 Campau building, Detroit, Mich., at 15 cents per copy.

The dismantled hull of the old sidewheel steamer Greyhound, was sold this week by the White Star line to Joseph H. Berry, for $3,000, to be used as a scow in filling the marsh just west of the waterworks.

The freight tonnage through the Sault Ste. Marie canal for this month gives every promise of breaking all previous records—in fact there is no doubt of it. Last season there were about 2,500 tons passed through the canal in April, this month the freight tonnage is expected to exceed 2,000,000 tons.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Detroit, for the week ending Tuesday, April 22. Prevailing wind directions for the week, S.W.; highest velocity, 45 miles, from the S.W. on the 22d; mean temperature for the week, 54; highest temperature, 81 on the 22d; lowest, 38 on the 16th.

Senator McMillan has re-introduced in the Senate the bill introduced in the last Congress for a three-span railroad bridge across the Detroit river at Detroit, to be built by an independent company, and to be used by all railroads. The senator says his purpose in re-introducing it is to keep the project alive, and the bill will not again be heard of this session.

The package freight handlers employed at the sheds of tne Port Huron & Duluth line of steamers went on a strike on Tuesday, on account of an alleged refusal of the company to recognize the union in its dealings with its employees. The company is paying the union scale, which is 5 cents more per hour than paid last season, but asserts its rights to hire the best men it can get rather than confine itself to the men furnished by the union. Upon the union men quitting work the company began hiring new hands.

Vesselmen at a meeting in Cleveland last week, discussed the proposed new ship canal at the St. Clair flats, for the construction of which the pending rivers and harbors bill contains an item of $330,000. Capt. McQueen, of Detroit, representing the interests of Don M. Dickinson, suggested the improvement of the middle channel by dredging from the lower end to the deeper water. A compromise suggestion agreed upon contemplates the paralleling of the present ship canal with a deep channel leading off across Buscamoot bay to the middle channel, and continuing up it to the north channel, thus providing a double pathway and obviating the necessity of up and downbound boats passing each other in the south channel between the head of the present channel and the island, where a number of vessels have come to disaster.

The United States steamer Hancock, attached to the United States Engineer's Department, will start to work this week, and her first object will be to investigate the wreck of the schooner Winslow, sunk near White Shoals, an important point, and if possible blow it up and move the debris. While not directly in the channel the wreck is nevertheless considered a menace to navigation. After this she will be engaged in sweeping the 20-foot channel, which is now in charge of the local office, this operation which was formerly done by the cumbersome process of lashing several scows abreast, dragging railroad iron and pushing the whole outfit with a tug, is now done more expeditiously by the Hancock, which carries beneath her a 40-foot steel bar at the required depth, so arranged that the extent and depth of any obstruction may be readily ascertained. With this rig she is able to proceed at the rate of four or five miles an hour.

It appears that the Great Lakes Towing Co. is not enjoying an exact monopoly of the towing business. A vesselman figuring up here the other day found that considerable towing has been done up to date without any of the syndicate boats working at all on account of the strike; he also finds that the outside wrecking companies are the McMorran Wrecking Co., Port Huron, Mich.; James Reid Wrecking Co., Port Huron, Mich.; F. W. Gilchrist Wrecking Co., Alpena, Mich.; Sweeney Line, Cleveland; John Quinn Wrecking Co., Detroit, Mich.; H. W. Baker Wrecking Co., Detroit, Mich.; R. F. Thompson Wrecking Co., Sault Ste. Marie, Mich.; Milwaukee Tug Boat Line, Milwaukee, Wis.; Toledo Harbor Tug Line, Toledo, Ohio; Independent Tug Co., Buffalo, N. Y.; F. B. Hackett, Amherstburg, Ont. It is to be hoped that before this reaches your readers the syndicate strike among the firemen will be over and all interests again working together for the advancement of lake commerce.

Hugh G. Winter, of No. 206½ Jefferson avenue, Detroit, is seeking information as to the death or whereabouts of his father, John G. Winter, an old marine engineer. Mr. Winter has received word to the effect that his father was washed overboard from some steamer while near Cleveland late last fall, but has not been able to confirm the story, although nothing has been heard from the missing man, and the latest information concerning him was that he shipped out of Cleveland and was washed overboard. John Winter was known in Detroit, about fifteen years ago, he having been in the employ of the D., B. I. & W. Ferry Co., later sailing as second engineer aboard the Northern Star. He was in her when the Northern Star collided and sank the Sheldon in Lake Superior. While his family has not heard from him for over six months, they still thought that he was alive, hearing only a week ago last Saturday that he was drowned. A favor will be done his family should anybody knowing of Winter's death communicate with his son, Hugh G. Winter, at the address given above.

DULUTH-SUPERIOR.

Special Correspondence to The Marine Record.

Moving of vessels, lumber piling, and other dock work, was suspended here on Tuesday, on account of the heavy blow.

Hugh Calderwood, manager of the Collingwood Ship Building Co., of Ontario, has accepted the same position with the Risden Iron Works, of San Francisco.

The steamer Uganda, while making the turn at the "gate," was blown ashore, running into the St. Paul & Western Coal Co.'s dock. As she had no tug she was compelled to lie there. The steamer Bunsen, while en route to the Missabe ore dock, was blown ashore and grounded off the Ohio coal dock.

The hard gale from the northeast blowing over Lake Superior caused the collapse of the new steel superstructure at the new Jones & Adams coal dock, at West Superior, on Tuesday. The Brown Hoist Co., of Cleveland, are the contractors. Owing to the velocity of the wind it was impossible for the men to work, or there would have been loss of life when the iron work collapsed.

Capt. O. C. Gaillard, Corps of Engineers, U. S. A., has issued a circular containing the new rules and regulations for the towing of rafts in Duluth-Superior harbor, and the entrances thereto. The new regulations, officially endorsed by William Cary Sanger, Assistant Secretary of War, will go into effect May 1, 1902, and it would be well for all masters frequenting the head of the lakes to carefully peruse the changed regulations.

The American Steel Barge Works at West Superior is a very busy place these times. No less than 42 boats, some of the largest type, wintered there, and now they are all at work. The new steamer Sultana, owned by Tomlinson and others, will be ready for cargo in a few days, so also will the J. G. Grammer, the second steamer built for the Seither Steamship Co. The second Tomlinson boat to be named the Sonora, will be launched early next month and the Hoyt, building to the order of Wolvin et al. about the middle of June. There is general work and repairs being regularly carried on so that a large number of men are kept fully employed at these large yards.

Mr. Joseph Hayes, chief engineer of the Pittsburg Steamship Co., who had charge of the wrecking of the steamer Crescent City and barge 130, when they were stranded on Lake Superior, said the work of getting the vessels afloat was difficult on account of the unfavorable weather. Capt. Benjamin Truedell, keeper of the Grand Marais life-saving station, and his crew stood by the stranded vessels all through the storm, said Mr. Hayes, and did everything in their power to assist us. With the waves sweeping over the vessels that were ashore they stood by in their little boat ready to render assistance if anything happened the ships. Mr. Hayes said that too much praise could not be given the brave life savers for their work.

The tug masters and engineers are getting restless at their enforced idleness on account of the firemen's strike for more pay, and the season slipping into fine weather. The few independent tugs are giving fair satisfaction except for night service. There are five tugs engaged in vessel towing in the Duluth-Superior harbor. They are the Annie L. Smith, owned by Capt. Eli Jacques; the tugs Brower, Mystic and Karroll, owned by the Stevens Towing Co., and the Tempest, owned by Capt. W. S. Lloyd. They are all busy night and day, and are reaping a harvest. The tugs are charging a moderate advance over card rates for their services. The firemen seem to be laying on their oars and letting the officers of the union do the worrying or the settling of their grievances.

The Northwestern dock is the first one to be built on the Superior bay front since the old east end dock was constructed years ago. It lies at the end of Winter street, between the two saw mills, the West Superior and the Schofield. The nearest coal dock to it is the St. Paul & Western, which lies at the end of Connor's Point. The new dock will be one of the very largest in the country, and will enjoy the distinction of being the largest dock at the head of the lakes. When it is completed it will be capable of storing 1,000,000 tons of coal This is providing for growth with a liberality. In the year 1900 the total amount of freight handled at Superior docks, east and west bound, amounted to 5,139,240 tons. It has increased largely since then, but it can be seen that this dock, when it covers its allotted 22 acres, will be able to handle a great share of the coal that comes to the head of the lakes.

Miss Alice Lorraine, a well known soprano soloist, is bringing suit against the North German Lloyd Steamship company, because she was forced to give up her stateroom aboard the Kron Prinz Wilhelm to accommodate Prince Henry on his trip.

BUFFALO.

Special Correspondence to The Marine Record:

The Welland canal opened on Monday, April 21.

Freight handlers on the docks of the Northern Steamship Co. are on strike and non-union men are employed in the freight house. The company state that they will have no difficulty in procuring labor.

Fort William, Ont., contributed her share to the commerce of this port by sending six cargoes of grain, aggregating 830,000 bushels, here on Monday, having a value of 80 cents a bushel or a total of nearly $664,000.

The business of the package freight lines has started in the season very light, and one line manager stated that unless there was a speed improvement some of the boats would have to be laid up. Three boats of the Western Transit Line have not yet gone into commission.

On the opening of the Welland canal here on Monday the superintendent issued a notice stating that all vessels passing over the unfinished work between Port Colborne and Stonebridge, must do so at their own risk if drawing more than thirteen and one-half feet of water.

At 6 o'clock Wednesday night the firemen on the boats of the tug trust went on strike in sympathy with the Duluth firemen, and business in the harbor is tied up. The tug guarding the wreck of the sunken tug Acme is manned by engineers. The local firemen state that they have no grievance.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Buffalo, for the week ending April 23. Prevailing wind direction for the week, S.W.; highest velocity, 56 miles, from the S.W. on the 21st; mean temperature for the week 54, highest temperature, 75 on the 22d; lowest, 41, on the 23d.

The River and Harbor bill, which passed the Senate on Monday, had an unusually peaceful course, experiencing little opposition in either House, and undergoing but few amendments. It includes liberal appropriations for Buffalo and vicinity, and directs a preliminary examination for the proposed deepening of Black Rock harbor so that the largest vessels may avoid the shallow part of Niagara river, and reach Tonawanda.

There is a shortage of anthracite coal by rail and for dock shipments, the demand east is as great as it is west of this point but business has had to be declined. There is a fair supply of bituminous. Considering the early season, anthracite shipments by lake has been fairly good at 40 cents to 50 cents, Chicago; Racine, 50 cents; Sheboygan, Manitowoc, Milwaukee, 40 cents; Duluth-Superior, or Toledo, 30 cents, with moderate figures on small cargoes to minor ports.

There is a mile of closely packed ice outside of the breakwater, and vessels experienced much trouble Wednesday, in forcing their way through it. The machinery of the Ramapo became disabled just outside the harbor, and she was towed back. It took the Leafield and Barr six hours to make their way into the harbor. The tug Dunbar broke her wheel and the Alpena her rudder while working in the ice. Niagara river is choked with ice, and no boats can get to Tonawanda.

All doubt, if any has existed, that the Detroit & Buffalo boats will be managed at this end by the Cleveland & Buffalo office force, was removed yesterday, by the receipt of H. S. Fisher, of his official appointment as general agent of the new line and the contract, signed and sealed, for the use of the docks at the foot of Illinois street for a term of years by the Eastern States and Western States, the new Detroit boats. The new line is expected to be in operation June 1. Mr. Fisher is also agent for the C. & B. Line.

The passenger steamer City of Buffalo lost a couple of hours in getting through the ice, on Tuesday morning. The river between here and Tonawanda was impassable. This situation indicates the condition which is likely to prevail should amended works be built to back up the water level on Lake Erie. Buffalo would then be the latest port on the lakes to get clear of ice, and it is about so this season. If the outflow is in any way artificially obstructed, masses of ice will linger until well into the heated term.

Some of the changes wrought in the lake trade during the past thirty years may be obtained from the following dispatches from Chicago, received in Buffalo twenty-nine years apart, the Courier says: Both are bona fide and give the condition of the grain trade on the respective dates: Chicago, April 21, 1902. "Two or three grain charters were made to-day at 1¼ cents on corn to Buffalo. While cargoes were not plentiful there did not seem to be many boats on the market." "Chicago, April 21 1873. Demands for vessels still active and rates higher. Schooners Skylark and Reddington taken for 15c., corn to Buffalo. At the close 15½c. was asked. Vessels were wanted for wheat to Buffalo at 13c.

An illustration of the fact that even the cargo boats are sailed with as careful an observance of time as the railroad operates its trains, was presented recently by the steamer S. S. Curry. Saturday last Thomas Roberts, of the firm of Howard and Roberts, received a telegram from Port Huron signed by Capt. Robarge, of the Curry, requesting Mr. Roberts to meet him on the docks at the foot of Main street at 5 o'clock on Sunday afternoon, at which time, Capt. Robarge stated, the Curry would reach Buffalo. It was 3:35 o'clock when the Curry rounded the main light, and notwithstanding the detention at the Bennett elevator it still lacked three minutes of five o'clock when the steamer's lines were thrown out at the Great Eastern dock.

"This having the night barge office only open until 10 o'clock in the evening," said a vessel captain, yesterday, "is a great inconvenience to masters. Now, in Chicago or Cleveland the barge office at the dock is open any time of day or night, and there's no danger of a hold-up for a captain if he chances to be delayed and fails to reach the office within certain hours. It ought to be the same here." "And there's no reason why it shouldn't, be," returned another marine man. "All that would be necessary is a strong petition from the Lake Carriers' Association presented at Washington. The orders would come promptly without a doubt." "Then it's up to the Lake Carriers to take action in the matter," continued the captain, "for there's no service they could render the vesselmen that would be more thoroughly appreciated."

CLEVELAND.

Special Correspondence to The Marine Record.

Lorain has fairly good tug boat service. The O. J. True has started harbor towing until the settlement of the strike.

It will take a week yet before the bar formed at Fairport harbor can be dredged away. Thirteen and one-half feet is all that can be taken in there now.

The large and well equipped docks at Erie formerly used by the Carnegie Steel Co., have been leased to the firm of M. A. Hanna & Co. Harry Raser will be superintendent of the new docks.

The steamer Crescent City and tow barge No. 130, are in drydock for survey and final repairs after stranding on Point Au Sable, Lake Superior, on their first down trip. Damages will be repaired in a few days.

Conneaut will be made the principal discharging port this season for the Pittsburg Steamship Co. Handling facilities now are about 4,000,000 tons of ore. The lease on the docks at Erie has been allowed to lapse.

In his opening card for the season W. F. Herman, general passenger agent of the Cleveland & Buffalo Transit Co., shows the steamers City of Buffalo and City of Erie. "The flyers of the lakes," as he calls them, are fitted with large wings instead of side-wheels.

Messrs. Upson-Walton & Co., shipchandlers, have purchased two new launches with which to deliver supplies from their house along the river to the various boats in the harbor. One of them is large enough to carry twelve tons, and the smaller one has a capacity of two tons.

The all-day service of the river custom house was resumed on Monday for the year. It has been necessary heretofore to keep the office open only during the day time, but the business is increasing now so much that the night service is required. The force is the same as last season.

The going rate is 75 cents on ore from the head of the lakes with undue detention at both loading and discharging ports, especially the latter. Fairport harbor only allows a draught of 13½ feet. Cleveland is short of tug service and vessels are bunched at Ashtabula as well as Conneaut.

The steel cargo steamer Minnewaska, 5,273 gross and 3,862 tons net, built at and hailing from Cleveland, has been granted official numbers by the Bureau of Navigation, Treasury Department, Washington, D. C. The Minnewaska is a sister ship to the Minnetonka, built here for salt water service, and now on her way to the coast.

J. C. Joll, ship carpenter, calker and spar maker, is now and has been keeping quite a force of men at work. He has just completed a general overhauling and repair work on the Mary B. Mitchell, the damage to the H. B. Tuttle through collision with the Quito in the river here has been repaired and two new pockets are now building for the National Dock & Fuel Co.

Members of the Cleveland Naval Reserves are incensed over what they claim are gross misrepresentations by the Toledo Naval Reserves, and the Toledo newspapers in regard to the U S. training ship Hawk, which, by the way, is a good sized pole spar steamyacht. The Toledo battalion, according to Cleveland officers, is composed of all classes of "land-lubbers," who know nothing about managing a ship.

The Cleveland and Buffalo line is now in daily service, the City of Buffalo having opened the season on Monday night, followed by the Erie on Tuesday. These two powerful and elegantly equipped side-wheel passenger steamers were never in better trim for their season's work, and the company must have gone deep into its bank account to pay for the overhauling and refitting for the comfort and convenience of the traveling public. General Manager T. F. Newman made the first trip in the Buffalo.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, for the week ending April 23rd. Prevailing wind direction, S.E.; highest velocity 46 miles, from the south on 22d; mean temperature for the week, 56, highest temperature 83, on the 22d; lowest, 36 on the 17th. Sunrise and sunset data computed for local time; April 24th, sun rise, 5:06, sets 6:52; April 27th sun rises, 5:02; sets 6:55; April 30th sun rises, 4:57; sets, 6:58.

Reports have been received in Cleveland the last few days of an obstruction existing in the lake between here and Ashtabula. The steel steamer I. W. Nicholas arrived here with a hole stove in her bottom as a result of encountering the obstacle. Major Kingman, the government engineer, has been asked to find the obstruction, whatever it is. He has asked the department at Washington for an apportionment of money for the purpose. The location so far is very uncertain. Two captains have said that they ran against the obstacle. Both agree that it is about thirteen miles west of Ashtabula. The belief is that it is a wreck of some kind, as it is hardly possible that there is any rock or reef there which has not been located before this time.

Capt. A. B. Wolvin, Duluth general manager of the Pittsburg Steamship Co., visited Cleveland on Tuesday.

Mr. W. L. Brown, Chicago, president of the American Ship Building Co., was in Cleveland on Tuesday, on busienss concerning a new steel mill to be erected at South Chicago, at a cost of $2,000,000. The capacity of the new furnace will be 350 tons a day. The holders of the stock of the company are Samuel Mather, H H. Brown, Charles H. Fuller, Walter F. Cobb, E. J. Buffington, C. P Wheeler, Charles H. Foote, D. M. Cummings, Charles Deering, C. H. Garvey, Fred. H. Foote and W. L. Brown. The president is W. L. Brown. The Deerings are said to be heavily interested in the new mill enterprise. The company owns fifty-one acres of land.

The tugs at Fairport, Ashtabula, Conneaut and Erie were placed in service on Monday, but the tugmen at Cleveland, Lorain and Duluth, are still out and it may be some time before the strike is settled. The officials of the Great Lakes Towing Co. and the Firemen and Linemen's Protective Association have reached an agreement at all ports except Duluth. The firemen at the head of Lake Superior are holding out for $60 a month, which is an advance of $7.50 per month over last year and is more than is being paid the men at other ports. The officials of the company have refused to grant the demands of the men. This port is losing considerable business on account of the strike as there is an insufficient tug service for the regular trade of the port. It is to be hoped that by the end of the week a mutual agreement will prevail.

The Minnetonka, Capt. Fowler, in two parts, is awaiting moderate weather to tow across the lake and, thence through the St. Lawrence system of canals to Quebec. This is the first of the two large cargo steamers built here under the rules of London Lloyds' Register, Mr. Heron local representative, Wade Building, to the order of Chas. E. and W. F. Peck, New York, for ocean or coastal service. The second steamer will shortly follow the Minnetonka to the coast, and, should the vessels prove all that is expected of them, it is likely that further orders for similar tonnage will be placed at lake shipyards. Mr. Robert Wallace will superintend the towing to Quebec. The Great Lakes Towing Co.'s tug Saugatuck, of Toledo, was chartered to tow a section of the steamer Minnetonka to Port Colborne. The tug arrived here, but the crew after consulting the local members of the Licensed Tugmen's Protective Association, refused to do the work and the tug was ordered back to Toledo.

LAKE FREIGHTS.

There is but little change in the freight market since last week, coal and lumber and grain charters are light and ore freights remain steady, at 75 cents from the head of lakes. 65 cents Marquette and 55 cents Escanaba. 75 cents has been paid from Micipicoten, and 70 cents offered, but the Marquette rate is likely to prevail.

The Duluth grain rate is quoted at 1¾ cents and 1¼ cents on corn from Chicago to Buffalo, 1 cent to Sarnia.

The coal rate is still at 30 cents to Lake Superior and 40 cents Lake Michigan, 50 cents was paid on a cargo Cleveland to the "Soo."

Lumber, this season's cut is too green to ship yet, but the $2.50 rate prevails from Lake Superior.

NOTICE TO MARINERS.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., April 22, 1902.

GENESEE EAST PIER BEACON LIGHT.—Notice is hereby given that, on or about May 25, 1902, a fixed red lens-lantern light will be established on the structure now being erected on the outer end of the east pier at the entrance to Charlotte Harbor, mouth of Genesee river, southerly shore of Lake Ontario.

The light will be 36¼ feet above mean lake level, and will illuminate the entire horizon.

The structure will be a white, square, pyramidal tower, covered with corrugated iron and surmounted by a lantern; lantern-gallery handrail, black.

GENESEE RANGE REAR LIGHT.—Notice is hereby given that, on or about May 25, 1902, the fixed red lens-lantern light at the shore end of the elevated walk on the west pier at the entrance to Charlotte Harbor, mouth of Genesee river, southerly shore of Lake Ontario, will be permanently discontinued.

By order of the Light-House Board:

N. H. FARQUHAR,
Rear-Admiral, U. S. Navy, Chairman.

THE WATER WAYS OF CANADA.

Canada in earlier days was styled "a wooden country," because of her vast forest areas, but the same term might as truthfully have been applied to the United States a century ago. One feature of Canada which might be used in a national descriptive title is her waterways, which are unrivaled in length as also in service to commerce.

From the point where the waters of Canada mingle with those of the Atlantic to a Canadian port at the head of Lake Superior, along the entire course of which a vessel may sail in Canadian waters, the distance is 2,260 statute miles.

From the Straits of Belle Isle to Montreal, the St. Lawrence river extends 986 miles, with a channel wide enough and deep enough for ocean steamers.

From Lake Superior to Three Rivers, on the St. Lawrence, where tidal influences ceases, a few hours' sail from Montreal, there is a drop in level to the extent of 600 feet; that is, a vessel from Montreal on its voyage to Port Arthur has to ascend 600 feet. To attain this height, there is a system of locks in operation, by means of which vessels are lifted 551 feet, leaving 49 feet to be overcome by working against a downward stream, which at one place near Iroquois often necessitates the employment of a tug to help a steamer up the river.

Between Montreal and Kingston, the canals, with their length, lock dimensions, and height of lift, are as follows:

Canals.	Length. Miles.	Length of locks Feet.	Lift of locks Feet.
Lachine	8½	270	45
Soulanges	14	280	81
Cornwall	11	270	48
Farran's Point	1	800	3½
Rapide Plat	3½	270	11½
Galops	7⅛	800 / 270	15½
Murray	5⅛	No locks.	

The width of the locks is 45 feet and depth of water on the sills 14 feet. On their course down from Kingston to Montreal, several of the canals are not used, as the rapids are run with safety. From Kingston, the course west is through Lake Ontario until Port Dalhousie is reached, where the Welland canal is entered. This splendid construction extends 26¾ miles; the total lift is 326¾ feet, which is effected by twenty- seven locks, each 270 feet by 45 feet, with a depth of 14 feet. From the end of the Welland canal—Port Colborne—there is deep water to the Sault canal, 394 miles. The Sault Ste. Marie canal extends 5,967 feet; it has only one lock, which is 900 feet by 60 feet, and lowest depth 20 feet 3 inches, the total rise being 18 feet. Another water course runs from Montreal to Ottawa and turns down to Kingston, a total distance of 245 miles. The rivers Ottawa and Rideau are part of this water way. The canals on this route are: Lachine, 8½ miles; St. Anne's lock and piers, one-eight of a mile; Carillon canal, three-fourths of a mile; Grenville, 5¾ miles. From Ottawa to Kingston—126¼ miles—there are thirty-five locks. Besides these main-line canals, there are others on the line of the Richelieu river; in Ontario, through the Peterborough district; in Cape Breton; and a number of branches acting as feeders to the Rideau and Welland systems.

As having an interesting bearing on the question of canal vs. railway transport of grain from the west, it may be noted that whereas grain and pease passed down to Montreal through the Welland and St. Lawrence canals to the extent of 332,746 tons, a decrease of 186,786 tons from the previous year, the quantity carried to Montreal via the Canadian Pacific and Grand Trunk railways amounted to 209,170 tons, a decrease of 84,221 tons. In addition, during the past two seasons, a new system of grain traffic has come into operation from Depot Harbor, on Georgian Bay, Lake Huron, over the line of the Canada Atlantic Railway, to Coteau Landing, at the head of the Soulanges canal; thence by barge to Montreal. In the season of 1898, the total freight carried by this route to Montreal was 253,735 tons, of which 226,406 tons were grain. In the season of 1899, 309,573 tons were carried, of which 259,531 tons were grain, going through the Beauharnois canal, the Soulanges not then being opened. Of the grain so carried in 1898, 59,063 tons were wheat and 149,169 tons corn; in 1899, 66,635 tons were wheat and 174,932 tons corn.

ENLARGED CANAL FACILITIES.

In his report, the Minister of Railways and Canals said: On the opening of navigation in the spring of 1900, by means of the enlarged canal system and the intermediate water ways (though not fully completed), passage of vessels drawing 14 feet of water from Lake Superior to the head of ocean navigation at Montreal was afforded. The extent of the improved facilities of communication so obtained and their value to commercial interests may be understood from the fact that in place of the old limit of lock dimensions—viz, length, 200 feet; width, 45 feet; depth of water on sills, 9 feet—the enlarged locks are 270 feet in length, 45 feet in width, with 14 feet of water on sills, accommodating vessels 255 feet long and 44 feet wide. As an index to the carrying power of the new canal works, it may be observed that a typical vessel—the propeller Aragon, whose length is 247 feet and width 42.6 feet—has passed through the enlarged Welland canal, drawing 14 feet of water and carrying 2,212 tons of corn. The through route between Montreal and Port Arthur, at the head of Lake Superior, now open for 14-foot navigation, comprises 73 miles of canal and 965 miles of river and lake waters, or a total of 1,038 miles. To Duluth, the total distance is 1,162 miles.

The approaches to the canals and the channel through the intermediate river reaches are well defined and are lighted with gas buoys, rendering their navigation by night as well as by day feasible and safe. In the case of the Soulanges canal, the canal is well lighted throughout by electricity, a system which will be extended to other canals before long. With the more intimate knowledge of the new channel through the St. Lawrence now possessed by the river pilots, full advantage will no doubt be taken of the improved facilities afforded by the enlargement works; and this great water highway from the west will realize the aims of its projectors and constructors in giving rise to the establishment of lines of deep-draft vessels on the route, with the beneficial result of a vast impetus to the trade and commerce of the country. Already, indications of movement on all sides promise the early and rapid development of the new era of progress, not only in the direction of the production and transport of crude materials, ores, grain, coal, and lumber, but in the enormous expansion of manufactures and industries on the shores of the Great Lakes and their connecting rivers, notably the iron and steel and shipbuilding industries, to all of which the ability to employ vessels carrying 3,000 tons of freight direct to the seaboard and Europe, which Canada has now afforded, must inevitably prove a great stimulant.

Though naturally not marked in equal degree, the tendency to a similar industrial development on the Canadian side is very evident, especially at the Sault Ste. Marie, where, in addition to the existing important pulp and paper mills, the establishment of large iron and steel works is in progress. At Collingwood, also, and Kingston like works are projected, while at Depot Harbor, on Georgian Bay, a system of wharves and elevators has been constructed for the accommodation of the grain trade. The very extensive harbor-improvement works at Montreal will naturally tend to attract traffic down the canals to that port. The improvements at Port Colborne, the Lake Erie entrance of the Welland canal, are in progress. They comprise the deepening of the approaches to the canal to 22 feet and the construction of two docks, with piers 200 feet wide, upon which grain elevators will be erected to transfer grain to the 14-foot-draft canal boats when required. The deepening of the approaches to the Sault Ste. Marie canal, at present limited to accommodating vessels of 17 feet 6 inches draft, so as to give a depth of 22 feet, thus enabling the canal works to be utilized to their full extent which is the same as the American canal on the other side of the river), will probably be carried out next year.

THE COAL TRADE OF BUFFALO.

Total Imports.	1898	1899	1900	1901
Anthracite, canal, net tons	6,855	620	267	.....
Anthracite. rail, net tons*	4,225 000	4,950.000	3,425,000	5,583,000
Bituminous, rail, net tons*	3,081,446	3,105,952	3,341,950	2,555.727
Total Exports.				
Anthracite, canal, net tons	241	.....	.....	.....
Bituminous, canal, net tons	.....	.....	224	2,806
Anthracite. lake net tons*	2,455,191	2,648 425	1,721,186	2.421,975
Bituminous, lake, net tons*	228,755	162,140	104,905	71.740

* Partly estimated.

The following statement shows the tonnage of anthracite coal shipped from Erie, Pa., by water, during the years named:

	Net Tons 1897.	Net Tons 1898.	Net Tons 1899.	Net Tons 1900.	Net Tons 1901.
To Lake Michigan ports.	439,587	530,914	558,796	516,833	430,701
To Lake Superior ports.	67.180	68,295	90,750	78,166	83 339
To Lake Huron ports...	4 867	2,656	3,955	4,671	4.084
To Lake Erie ports.....	4,167	1,470	5,181	4.5 9	1,848
Totals.....	515,801	603,335	658,683	604,251	519 974

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade Saturday, April 19, 1902.

Cities Where Stored.	Wheat. Bushels.	Corn. Bushels.	Oats. Bushels.	Rye. Bushels.	Barley Bushels
Buffalo	1,663,000	94,000	400,000	157,000	472,000
" afloat	.....	80,000	50,000	.....	.....
Chicago	6,483.000	4,442,000	681,000	772,000	37,000
Detroit	146,000	86,000	1,000	30,000	1,000
Duluth	12,541,000	63,000	175.000	286,000	133,000
Fort William, Ont.	3,246,000	.....	.....	.....	.....
Milwaukee	509 000	303,000	72,000	22,000	115 000
Port Arthur, Ont.	225,000	.....	.....	.....	.....
Toledo	.....	439,000	321,000	110,000	.....
Toronto	51,000	.....	13,000	.....	20,000
On Canals	46,000	3,000	87,000	37,000	5,000
On Lakes	3,308,000	777,000	305,000	175,000	197,000
On Mississippi Riv.	151,000	.....	.....	.....	.....
Grand Total	44.241,000	7,226,000	3,114,000	1,843,000	1,365,000
Corresponding Date 1901	49,868,000	21,328,000	10,911,000	1,012,000	718,000
Increase for week	.....	.....	60,000	.....	187,000
Decrease " "	2,370,000	324,000	.....	129,000	.....

While the stock of grain at lake ports only is here given, the total shows the figure for the entire country except the Pacific Slope.

REPORT OF THE UNITED STATES LIFE-SAVING SERVICE 1901.

There were 270 stations embraced in the Life-Saving Establishment at the close of the fiscal year. Of this number, 195 were situated on the Atlantic and Gulf coasts, 58 on the coasts of the Great Lakes, 16 on the Pacific coast, and 1 at the Falls of the Ohio, Louisville, Kentucky.

The number located in each of the several districts was as follows:

First District (coasts of Maine and New Hampshire)	14
Second District (coast of Massachusetts)	31
Third District (coast of R. I. and Fishers Island)	8
Fourth District (coast of Long Island)	33
Fifth District (coast of New Jersey)	42
Sixth District (coast from Cape Henlopen to Cape Charles)	18
Seventh District (coast from Cape Henry to Cape Fear River)	31
Eight District (coasts of South Carolina, Georgia, and eastern Florida)	10
Ninth District (Gulf coast)	8
Tenth District (Lakes Erie and Ontario, including Louisville Station)	12
Eleventh District (Lakes Huron and Superior)	18
Twelfth District (Lake Michigan)	29
Thirteenth District (Pacific coast)	16
Total	270

LITERARY NOTICES.

Mr. Randolph I. Geare's article, "From Raft to Steamship," is continued in the current Supplement of the Scientific American, No. 1372. The third part of this interesting discussion is devoted to modern sailing ships, and is well illustrated by half-tones representing standard types. E. Price-Edwards concludes his article on "Sound Signals." "Some Notes on Steam Turbines" is the title of an illustrated paper by F. J. Warburton, in which a most important phase of modern steam engineering is treated. The account of the Paris Automobile Show, begun in last week Supplement, is concluded. A. D. Elbers contributes a most important article on "Tests and Consitution of Portland Cement." Coming as it does from a writer who has given no little thought to the subject, the article should be of wide interest. Among minor articles may be mentioned an account of the work at the World's Fair, city of St. Louis, "Texas Oil for Locomotive Fuel," "Lumiere Process of Color Photography," and "Pressure of Luminous Rays."

Almost since its inception many well-meaning people have taken exception to the use of the term "wireless" in connection with the electric wave telegraphy, and numerous substitutes have been offered, for instance, etherography, syntonography, and the like, but so far these suggestions have fallen flat. Etherography is quite applicable to helography and to ordinary telegraphy as to wireless telegraphy, and there is no good reason for the term syntonography. Wireless, indeed, is as convenient and significant as any other name that might be chosen. The exception to the name is that wires are still employed in the apparatus of this system, which is true; but so they are in wire telegraphy in relays, etc.; yet no one ever thinks of the latter in connection with wire telegraphy. The fact is, that the connecting wire between a sending and receiving station was looked upon as absolutely essential to telegraphy up to the time of electric wave telegraphy, and it was the ability to dispense with this connecting wire that produced the profoundest impression on the public mind; hence the term wireless telegraphy was singularly apt. If another name be desired, it will be easy to follow the precedent already set in the case, for instance, of Morse telegraphy and Wheatstone automatic telegraphy, and term it the Hertz, Lodge, Marconi or other wireless telegraphy, as the case may be.—Cassier's Magazine for May.

Ye can't con-vince me, me boy, that a man who's so nearsighted he can't read th' sign on a cable-car knows anny more about th' formation iv th' earth thin Father Kelly. I believe th' wurruld is flat, not round; that th' sun moves an' is about th' size iv a pie-plate in th' mornin' an' a car-wheel at noon; an' it 's no proof to me that because a pro-fissor who 's peekin through a chube all night says th' stars ar-re millions iv miles away, an' each is bigger thin this wurruld, that they 're bigger thin they look, or much higher thin th' top iv th' shot-tower. I've been up tin thousand feet on a mountain, an' they seemed so near that I kept whiskin' thim off me nose as I lay there on me back, but they was n't anny larger thin they were on th' sthreet-level. I believe what I see an' some iv th' things I 'm told, if they 've been told often, an'thim facts iv science has not been hung long enough to be digistible.—May Century.

ADVICES from New York City are to the effect that a number of crane building interests are to be consolidated under the name of the United States Crane Co. The dispatch states that firms located in New York, Cleveland, Muskegon, Mich., and others are included in the deal, which will soon be consummated. The capital stock of the new company is to be placed at $100,000 later, to be increased to $25,000,000. A. E. Brown, vice-president and general manager of the Brown Hoisting Machinery Co., Cleveland, is quoted as stating that so far as he is aware there is nothing in the report. Others supposed to be connected with the new organization were unable to give any definite information.

CONTRACT RIGHTS OF SEAMEN.

James M. Mulcahy, a seaman now on the lakes, formerly of the U. S. Navy, is suing in the Court of Claims, for naval pay. In enlisting in the Navy he engaged to be liable to the "Articles Governing the Navy," (sec. 1624 R. S.). One of those articles provides that "offenses not specified in the foregoing articles shall be punished as a court-martial may direct," (Art. 22, sec. 1624 R. S.). A court-martial sought to punish Mulcahy (by depriving him of his pay), on a charge of an offense "not specified," either "in the foregoing articles" or in any other statute governing the Navy. As a naval court-martial gets its power to punish only from the statutes that are law for the Navy, and as Mulcahy was not charged with the breach of any such, it is plain that his naval sentence was unauthorized by naval law. The pay withheld must, therefore, be restored to him.

The case is interesting to masters and ship-owners because the Navy Department, which is a great ship-master, makes a claim in it counter to that long-established maxim; "even if the terms of the contract were doubtful or ambiguous, the Court, by a well settled rule, would be bound to give to it a construction most favorable to seamen." 1. Sawy. 185. Its claim is that Congress, after laboriously detailing in Art. 1-21, § 1624 R. S. what constitutes an "offense," did, in Art. 22, make that minute precision of description useless, confess its inferiority as a legislator, and resign its functions, to the Navy's Judge Advocate General. With article 22, if Congress does not wipe out its previous and subsequent penal legislation for the Navy, it at least called legislation superfluous, says the Department, and even deputes to the J. A. G. a power which it does possess, i. e., the right to make, in effect *ex post facto* laws, and charge an accused with having infringed them. The seaman's claim is that by Art. 22 he is protected. Under a charge of violating Art. 24, for example, a certain captain was in 1890 found guilty and punished for inflicting unlawful punishments by "ironing enlisted men in twos 24 hours," making them "march 6 hours while in irons," keeping them "standing upon their feet toeing a seam from 9 p. m. to 1 a. m. every night," etc. Art. 24 does not conclude with the usual phrase "may be punished as a court-martial shall direct." If Art. 22 did not refer to breaches of such an "offense," if it meant to give the J. A. G. the right to designate what shall be an act punishable by sentence to the penitentiary or death, then seamen might not claim its protection against cruelties misnamed punishment, prohibited by Art. 24 and punishable by Art. 22. Certain famous regulations, those of 1870, quoted in 100 U. S. 22, support the seaman's claims, requiring that the only "conduct" which may be charged against a naval accused, is that forbidden by Art. 8, sec. 1624 R. S.; i. e., "Scandalous conduct tending to the destruction of good morals." In this these regulations but re-affirm the principle of the Supreme Court in U. S. V. Aredondo, 6 Pet. 691: *"Expressio unius est exclusio alterius* is a universal maxim in the construction of statutes." Notwithstanding that court again affirmed that ruling and Congress gave to it legislative sanction, (116 U. S. 180, 181, 183), we find an attempted effacement of it in the Navy Reg. of 1900, Art. 1840(4), by adding to the list of naval acts denounced by Congress, an indefinite charge over which only army courts-martial have, wisely or unwisely, been given jurisdiction: "Conduct to the prejudice of good order and discipline." This accusation, at first sight, seems plausible. But its most dangerous vagueness is thus candidly pointed out in the reports of the Judge Advocate General of the army, for 1881: "The 62d article of *war* reads: 'All disorders which *soldiers* may be guilty of, to the prejudice of good order and *military* discipline, are to be taken cognizance of, etc.' This sweeping provision was adopted by the Continental Congress Sept. 20, 1776, being taken from the articles made by the crown of England; but whether it was a proper exercise of power has not received judicial sanction. 'The Devil's article' neither mentions nor specifies any known offense. In many of the prosecutions under it the facts alleged are without precedent and do not come within the terms of any statute. The article, therefore, is construed to deal out unknown punishments for unknown and undefined crimes and offenses. As a consequence of this uncertainty one court-martial may, and often does, consider actions as 'to the prejudice of order,' while another court-martial, on substantially the same state of facts would consider them proper or excusable. The generality of this article induces the manufacture of new offenses, with pay lost to soldiers amounting to $150,000 annually, great dissatisfaction, discontent and frequent desertions, entailing great loss to the service. The court-martial, contrary to the fundamental maxim, 'a court declares the law but may not make it,' legislates what shall be deemed criminal."

This ruling is illustrated in the Navy Department's approved "Forms of Procedure," (Laucheimer). Under this indeterminate charge which Congress has not extended beyond the jurisdiction of army courts, is found specified "having a flask of liquor in possession;" (p. 38). Merely that. Did the possessor of the flask disobey any order in having it?" If so, is he not entitled to have the order specified and the charge made, "disobeying the lawful order of his superior officer?" (Art. 4, § 1624 R. S.) If a general order was issued to him is he not similarly entitled to notice of it and a chance to deny ever having received it, under the charge, "Refusing obedience to a lawful general order or regulation issued by the Secretary of the Navy?" Art. 8, (20) § 1624 R. S. If not guilty of either of these, since no statute says "don't have flasks in possession," why is he not innocent? Congress says he is, telling a court-martial not to punish under a supposed charge of violating Art. 22 any but "offenses not specified in the foregoing articles," among which offenses so specified is disobeying orders individual or "general."

Under the same baleful charge is specified in this "Procedure" book what the Navy Department would hardly dare to prohibit directly, viz., getting the assistance of counsel to intercede with the Secretary of the Navy against possible maltreatment on remote naval stations or vessels; (p. 39). In not one of these "Forms" is any act specified which is not either wholly innocent or chargeable "in the terms used of some statute for the government of the navy." (116 U. S. 180, 181). So holds the War Department, in effect, in G. O. 8, of July 23, 1856: "There is no such offense known to the articles of war as 'conduct unbecoming an officer.' The unbecoming conduct of a commissioned officer, of which the law takes notice and authorizes a court martial to take cognizance, is 'conduct unbecoming an officer and a gentleman.' There is no minor indecorum, no 'unbecoming conduct' not 'unbecoming an officer *and a gentleman*,' that the law submits to the jurisdiction of a court-martial. The sentence is therefore void." The accused had been found guilty only of "conduct unbecoming an officer." This phase is much more within the army articles (Art. 61, § 1342 R. S.) than "conduct to the prejudice" is within the naval article. In the latter nothing like the loose "prejudicial to order and discipline" is found.

(TO BE CONTINUED IN NEXT ISSUE.)

LAKE SUPERIOR ORE DOCKS.

Chief Engineer Robert Angst, of the Duluth & Iron Range road, has issued his annual blueprint statement of the ore dock systems of the Lake Superior region. The season of 1902 will witness increased facilities to the extent of 56,920 gross tons storage capacity, representing an addition of much importance to the shipping capacity. The improvements at the head of the lakes include the No. 2 ore dock of the Great Northern at Superior, and No. 4 dock of the Duluth & Iron Range at Two Harbors.

The capacity of No. 2 dock at West Superior will be 87,500 tons this season, as compared with 62,500 tons last year. This is the biggest ore dock in the world from any standpoint. It has the greatest capacity and is the highest ore dock in use. No. 2 dock of the Missabe system in Duluth was the biggest up to the present, with a capacity of 69,120 tons. These figures all relate to storage capacity. The shipping capacity is measured by the facilities for putting the ore through the dock and then for taking it away from the spouts. The No. 4 dock at Two Harbors has its capacity increased from 30.240 to 36,960 tons. The Milwaukee road has extended No. 1 dock at Escanaba, increasing the capacity 25,200 tons, and giving it a total of 50,400 tons. The total storage capacity of the ore shipping docks of the Great Lakes is now 852,266 gross tons as compared with 795,346 tons in 1901.

LAKE ERIE TO PITTSBURG.

The Pittsburg and Lake Erie canal may yet be built. Representative John Dalzell's bill to incorporate the Lake Erie & Ohio River Ship Canal Co., which was favorably reported from the committee of railways and canals towards the close of the last session of Congress, but was not considered by the House, before Congress expired, was again ordered to be reported by the committee yesterday, with a recommendation that it pass.

The company is authorized to construct a ship canal from some point at or near Pittsburg, on the Ohio river, near the junction of the Monongahela and Allegheny, thence via the Ohio, Beaver and Mahoning rivers in Pennsylvania to a point at or near Niles, Ohio; then northwardly through Ohio to the most accessible harbor on Lake Erie between the Pennsylvania and the Ohio state line and the mouth of the Grand river in Ohio, including said river; also a branch canal from the mouth of the Shenango river, Pennsylvania; thence along the Shenango to a point at or near Greenville, Pa.; also a branch canal from a point at or near Niles, Ohio; thence along the Mahoning river to a point at or near Warren, Ohio. The main canal must have navigable channels at least fifteen feet deep.

The project has already cost Pittsburg $40,000, which was appropriated several years ago to secure the necessary surveys for a report upon the feasibility of the plan. Charters have been secured in Ohio and Pennsylvania for the canal company, and all that remains to establish the legal end of the enterprise is the passage by Congress of the bill.

The following story is credited to a Western paper: A young officer at San Francisco had been ordered to the Philippines. He received the following telegram from the War Department at Washington. "You can go to New York, and sail on transport that goes by Suez." The officer replied: "Would prefer to cross Pacific direct." Then the Department telegraphed him again: "Transport will make good time; has sixty women school teachers on board." The young lieutenant answered: "Save me a berth on transport."

SHIPPING AND MARINE JUDICIAL DECISIONS

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Presumption of Care.—In case of collision between two anchored vessels, one of which dragged its anchor while the other did not, the latter is presumed to have been free from fault. The Severn, 113 Fed. Rep. (U. S.) 578.

Collision—Defenses—Inevitable Accident.—The defense of inevitable accident in a suit for collision will not avail a vessel unless she is shown to have been free from fault. The Severn, 113 Fed. Rep. (U.S.) 578.

Shipping—Demurrage.—Ordinarily demurrage is the agreed additional payment by the charterer for the allowed detention of the vessel beyond the period specified in the charter party. Morgan vs. Garfield & Proctor Coal Co., 113 Fed. Rep. (U. S.) 520.

Fault of Pilot—Improper Place of Anchorage.—The fault of a licensed pilot in anchoring a foreign vessel without cargo in the place allotted to loaded vessels by the harbor regulations is not attributable to the vessel. The Severn, 113 Fed. Rep. (U. S.) 578.

Costs—Excessive Bond—Effect.—On a libel for salvage the requirement of an excessive bond from claimant should not be permitted to relieve him from costs where the amount appeared to have been agreed on, and the claimant had had an opportunity to apply to the judge for a reduction. The barge No. 127, 133 Fed. Rep. (U. S.) 529.

Seamen—Right to Wages—Set Off of Damages Caused by Neglect of Duty.—The master, mate, engineer, and fireman in sole charge of a tug, who, through gross and culpable neglect of their duty, permitted her to become grounded, by which she sustained damage, are liable to the owner for such damage, which may be set off against their claim for wages. The Juneau, 113 Fed. Rep. (U. S.) 514.

Collision—Steamship in Fog—Failure to Stop and Reverse.—Evidence considered in a cause for collision between the steamships Tellus and Belgian King in the Pacific ocean, at night, in a dense fog, and the Belgian King held to have been solely in fault for failing to stop and reverse on becoming aware that she was in close proximity to another vessel, as the Tellus was shown to have done. Hunter et al., vs. The Tellus, 113 Fed. Rep. (U. S.) 525.

Maritime Liens—Supplies—Contract with Owner.—The rule applied that by the maritime law no lien is presumed to arise for supplies or labor furnished a vessel on a contract made by the owner, and proof is required that the minds of the parties to the contract met on a common understanding that such a lien should be created. Cuddy et al., vs. Clement et al., 113 Fed. Rep. (U. S.) 454.

Admiralty Jurisdiction—Suit for Statutory Penalty—Enforcement of Maritime Lien.—Rev. St. § 563, cl. 8, which confers upon the district courts of the United States jurisdiction "of all civil causes of admiralty and maritime jurisdiction," gives such courts jurisdiction of a suit to enforce a maritime lien created by a state statute for pilotage fees, or for a penalty imposed by such statute for the failure to take a pilot as therein required. The Lida Fowler, 113 Fed. Rep. (U. S.) 605.

Shipping—Construction of Charter—Duty of Vessel to Provide Against Damage from Usual Method of Loading.—The owner chartered a steamship, by a time charter, to be employed in carrying lawful merchandise, for which she was warranted in every way fitted. The owner agreed to maintain her in a thoroughly efficient condition during the service, and it was stipulated that the hire should cease during time lost by reason of her becoming unfit, if exceeding twenty-four hours. The charter subchartered her, and she was again subchartered for two voyages to carry cargoes of iron ore from Cuba to an American port. In the loading of the first cargo she received some slight injury, particularly to her hatch coamings and their appurtenances, and in loading the second time more serious injury, which rendered her unseaworthy, and made it necessary to make repairs after her discharge, which occupied five days. The owner brought suit against the charterer to recover charter hire during such five days, and the cost of the repairs, and by petition of respondent the subcharterers were both brought in. It appeared that the ore was loaded in the usual manner, by means of chutes, and that the injuries received, beyond those which were to be expected from the character of the cargo, which was necessarily hard on ships, resulted from the fact that the ship was not constructed in the best manner to receive such cargo, and that the master failed to take such measures as he might have done, and as were customary, to protect the deck and hatchways. Held, that the subcharterers were protected from liability for injuries due to such causes by the subcharterers, which warranted the ship to be in every way fitted for that particular service; that the original charterer was also protected, the service being a lawful one, in which he was authorized by the charter to engage the vessel, and the ordinary risks from which were assumed by the owner, and hence it was not liable either for the cost of repairs, or for charter hire during the time they were being made. Worrall vs. Davis Coal & Coke Co., et al., 113 Fed. Rep. (U. S.) 549.

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CLEVELAND, O., APRIL 24, 1902.

THE term "navigating" such creeks as Buffalo, Cleveland, Chicago and others, is a good deal after the order of "piloting" in a mill pond.

IT IS STILL a mooted question if the moderate sized 3,000 to 4,000 ton steel lake cargo steamers are not better paying property, or as an investment, than the 500 foot, 7,000 to 8,000 ton craft.

THE superintendent engineer of the Pittsburg Steamship Co., is loud in the praises of the crew of the Grand Marais life-saving station. When the steamer Crescent City and her consort, the whaleback barge No. 130, stranded on Lake Superior last week the support and services of the life-saving crew were invaluable, and it is said that too much praise could not be given the brave life-savers for their work.

IT NOW seems as if we had collared the supremacy of the north Atlantic trade without a rivet being driven by Americans in American shipyards. Let it be remembered, however, that the vast tonnage said to be capitalized at $200,000,000 is still under a foreign ensign and must remain so unless, or until, a special act of Congress permits the actual owners to show their own colors, the Stars and Stripes.

IN THE question of extending the eastern arm of the Cleveland breakwater away to Gordon Park, it would be in order to inquire, according to the views of the junior senator from Ohio, (M. A. Hanna), if the construction of a breakwater was not primarily to obtain a harbor of refuge for shipping? Secondly how many vessels had taken advantage of the protection already offered, and if the approaches, depth and holding ground were all that could be desired for a prominent port of shelter on the south shore of Lake Erie.

IT IS the bounden duty of the Corps of Engineers, U S. A., in charge of the conservancy and improvement of rivers and harbors to define harbor lines at every probable future lake port, and even at places where the traffic is almost nil or insignificant at the present time. The future holds forth untold possibilities along the lines of increased lake commerce, and official surveys of the harbor lines will, in many cases, save long drawn out and expensive litigation, even such as is now pending at the most prominent lake ports. Such surveys would also greatly assist in the deliberations of future river and harbor bills and appropriations requested therein.

RIVER AND HARBOR BILL.

The River and Harbor Bill, carrying an appropriation of about $70,000,000 may now be considered as practically safe, having passed the Senate with but few amendments or alterations.

In the form in which it is reported from the Committee on Commerce the River and Harbor Bill was passed by the Senate on Monday. Every amendment made by the committee to the bill as it passed the House a couple of weeks ago was agreed to promptly. The most important of these amendments as affecting Cleveland is the one which limits the extension of the proposed new east breakwater to a point opposite the prolongation of Case avenue. This amendment, as has been explained before, was inserted at the suggestion of Senator Hanna, Ohio, who, as is understood in Cleveland, believes the time is not ripe for the authorization of the extension as far east as Gordon Park. The appropriation for this improvement and also for the new harbor entrance remains as it was fixed by the House, $500,000 to be made available on July 1, and $2,300,000 to be expended to be appropriated in the future.

In its present shape the bill will now be referred to a conference committee representing the House and the Senate. Mr. Burton, Ohio, chairman of the Rivers and Harbors Committee, will be the chairman of the House conferees, and will insist upon the elimination of the amendment restricting the breakwater extension to Case avenue. The other House conferees will doubtless sustain Mr. Burton in his contention, but how the Senate conferees will stand is an open question. It is then that the issue between Senator Hanna and Mr. Burton will be determined, and the result will be awaited with much interest.

Other amendments contained in the bill as it passed the Senate which are of interest to Northern Ohio and the lakes in general are the following: Ashtabula, increase from $135,000 to $200,000; Huron, increase from $25,000 to $40,000; Grand River, Mich., increase from $125,000 to $150,000; Menominee harbor and river, increase from $20,000 to $50,000; Duluth harbor, decrease from $275,000 to $200,000. The bill also carries a new appropriation of $135,000 for a new cut from Saugatuck harbor and Kalamazoo river to Lake Michigan.

Under the skillful leadership of Chairman Burton the bill was so carefuly prepared that when reported to the House and subjected to an unusually free discussion, it passed without a single change unacceptable to the committee. The Senate Committee on Commerce spent but brief consideration upon it, and as reported it was so satisfactory to the Senate that it passed with but little discussion.

CHICAGO RIVER TUNNELS.

As was to be expected, the crown of the tunnels running under Chicago river obstructs and delays navigation when the wind is anywhere from the southward.

Several steamers have grounded on the Washington street tunnel since the opening of navigation, one being eventually floated only to make room for another to lay there neaped half a foot and blocking all navigation in the south branch.

It is absurd to say, as Drainage Engineer Randolph is declared to have stated, that it would do no good to check the flow through the river as long as the water at the south end of the lake remains at low stage, and that only a change in the wind would bring relief. Vesselmen do not agree with him. They contend that there must be some drop in the river, or else there would be no current flowing. They declare that the true reason for refusing to close the dam at Lockport is that it will cripple the electric lines and other works supplied with power from the canal.

Marine interests are at a loss to know what recourse they have and a movement is on foot to appeal to the Secretary of War for relief. All deep-draught vessels are blocked in going to and from their docks in the south branch of the river, and these delays are in many cases a severe loss to vessel owners. The fear of this condition prevailing all season is no doubt steadily driving vessels away from the Chicago river, and in all cases, higher freights must be obtained so as to meet the almost certain increased expenses of tow bills, detention, hull straining, and stresses, parting of lines, etc.

IT IS REPORTED at San Francisco that there are forty-three steamers on the Pacific coast now using oil fuel instead of coal, the latest vessels to adopt oil being the steamers Mariposa and Alameda, of the Oceanic line, running to Honolulu, both of 3,158 tons gross, and built in 1883. The aggregate tonnage amounts to 40,480, the largest vessel being 3,549 tons and the smallest 58 tons, or a mean for the forty-three steamers of 940 tons in round figures. The change has, it is stated, come about almost entirely within the past six months, as the result of experiments on the proper use of the oil, style of burners, etc. The first steamer to use oil on the Pacific coast was the George Loomis, employed by the Pacific Oil Co. to transport its oil from Ventura county to the refinery at Alameda, and she has been burning oil for over six years. A San Francisco writer states, "It is believed here that, whereas there is now a cry of over-production, in the course of a few months there will not be enough oil to supply the demand."

IT IS a very poor idea to have the name of a boat, and more especially that of a passenger steamer, stencilled and painted in numerous places around her upper works. Taking a glance around one of our latest and best the other dav, we noticed the name of the craft stencilled and painted on anything and everything. Now in the event of a slap of a sea knocking away some of this gingerbread work deck fittings, etc., etc., and the vessel being somewhat delayed on her passage, the branded light work might be picked up and give rise to no end of uneasiness to relatives of passengers and crew. Managing owners should see that the name is placed where the law compels it to be and nowhere else. Another thing we noticed was that the line was advertising, under a government frame, the picture of a rival passenger line. This is not good business either.

CANADA has put afloat some of the finest wooden keels that ever plowed water. Vessels built in Canada, by Canadians, and of Canadian materials. On the other hand, the Dominion has never constructed a single iron, steel or composite ship from its own resources. Of course some fine metal craft have been built in Canada, but the plates, angles, beams, etc., had first to be imported, also a considerable portion of the most important part of the equipment. According to the present outlook this stigma will not rest on Canada for but a short period longer. The iron ore is being mined, converted into pig iron and certain forms of steel are being made, so that the process needs but a step or two further to make the various forms of structural iron, including those in use for all sorts of marine construction.

THE ways of the combinations and syndicates are not always strewn with palms or roses, or other such fragrant and delightful underpinning, as witness the general strike inaugurated by the tugmen against the Great Lakes Towing Co., at all lake ports. We are told that in the multiplicity of counsel there is wisdom and such being the case, this controversy ought soon to be brought to a close. The tugmen realize their surroundings, actual labor and requirements, the principals of the syndicate are comprised of some of the most astute business men in this section of the country. Why, therefore, should not a good square heart to heart understanding be brought about without one side endeavoring to best, razzle dazzle or overreach the other in any manner. A good and logical standpoint in such cases is to put yourself in the other fellow's shoes.

THERE is no use of beating around the bush or begging the question, the fact is patent to all interests that navigation opened too early this season. The century numbered fleet of the Pittsburgh Steamship Co. must have lost money, while the owners of lesser fleets have not made anything, chiefly on account of low freight rates, low water, casualties, etc. A large number of vessels are not yet fitted out, and their owners, no doubt, hope that the tugmen's strike will last for about a month, when free navigation, with all the pilotage aids will be established.

SUPERINTENDENT Sumner I. Kimball, of the Life-Saving Service, ex-Congressman Scudder, of New York, and President Livingston, of the Lake Carriers' Association, were heard by the House Committee on Commerce, on Tuesday, relative to arguments in favor of the bill to pension men in the Life-Saving Service at rates equivalent to those paid privates in the army and seamen in the navy.

CONSOLIDATION OF STEAMSHIP LINES.

J. P. Morgan, who is now abroad, has practically consummated a plan to combine all the leading trans-Atlantic steamship lines.

The companies to be consolidated will, it is understood, include the American and Red Star lines, White Star line, Dominion line, Atlantic Transport line and the Leyland line. The two last named lines have been under Morgan control for some time. Probable additions to this list are the Cunard, Wilson and Holland-American companies, and it is understood that a "working agreement" will be reached with the other leading trans-Atlantic companies, including the North German Lloyd, Hamburg-American General Trans-Atlantic (French), and Allen and Anchor lines.

In this country the more important details have been in the hands of Clement A. Griscom, of the American line, while Charles Steel, Mr. Morgan's partner in New York, has had charge of the legal preliminaries.

George W. Perkins, of J. P. Morgan & Co., is authority for the statement that American interests will dominate the proposed amalgamation, and declares that the result will prove not only a great triumph for Mr. Morgan, but will make the United States the real rulers of the merchant marine of the world.

Mr. Perkins also says that the plan will be of the greatest benefit to importers and exporters as well as to the great railroad interests of this country. Its effect will be felt by shippers from Maine to California, Mr. Perkins says, and will also result in a better understanding between the commercial interests of this country and Germany.

"It is true," he added, "that Mr. Morgan will act as syndicate manager in this combination, just as he brought together and welded the various interests in the United States Steel Corporation. The financial details have been completed to the extent that all the cash necessary for the deal has been subscribed. It is too soon to speak of the directorate, but let it be borne in mind that control of the company will be held here."

It is taken as a matter of course that the interests now prominent in the various steamship lines will be taken into the consolidated directory.

The announcement that the International Navigation Co. had entered the steamship combination of which J. P. Morgan is the head, was officially confirmed at the office of President Clement A. Griscom by Howard Pusey, private secretary to Mr. Griscom. The terms of the agreement between the International Navigation Co., the White Star, Dominion, Leyland, Atlantic Transport and Red Star Lines, which are included in the combination, could not be learned, the statement being made that the details are in the hands of Mr. Morgan and their publication must come through him.

A special act of Congress, Mr. Pusey explained, would be necessary to permit a foreign built vessel to sail under the American flag, but, he said, there is nothing to prevent an American company from owning and controlling interest in a foreign company. In consequence, vessels affected by the combination will sail under their respective flags, but will be controlled by American capital.

Mr. Griscom said he was unable to speak definitely regarding the financial plan, as that was a matter for the consideration of Mr. Morgan and his partners; which will probably be decided upon within the next two weeks. In any event, President Griscom said, the consolidated companies would probably be in operation under the new conditions within a few months.

So far as the negotiations regarding the merger are concerned they have been completed. Agreements for a controlling interest in each of the various lines have been secured, and all that now remains to be accomplished is the organization of the holding or parent company. The matter is now in the hands of J. P. Morgan & Co. and their lawyers.

It is possible, though by no means certain, that the International Navigation Co., whose chartered powers are very broad, will be made the parent company. The question now under consideration is the desirability of this plan as against the organization of an entirely new company to control the operations of the combined steamship lines.

The published statements as to the final basis of the combine, Mr. Griscom said, were entirely speculative, as that detail had not as yet been completed.

"The capitalization of the consolidated companies," said Mr. Griscom, "will be in the neighborhood of $200,000,000, which sum about represents the property absorbed. Working capital, of course, will be provided, and the profits and reserve fund should enable us to build the necessary additions to our fleets. While control of the company will be held in this country, it will be a strictly international company, fostering the various companies included in the consolidation, providing for their autonomy and respecting their natural surroundings."

"The object of the combination," continued Mr. Griscom, "is to try to give better transatlantic service at a decreased cost. Heretofore the traffic has been extravagantly conducted, and we propose to operate more intelligently in the future. We expect in time to inaugurate a system of daily departures from New York, an innovation that is a real necessity. There is no political significance in this deal. The negotiations have covered a period of many years, and I was interested in the subject as far back as 1884. The passage of the ship subsidy bill would have had but one effect so far as we are concerned. It would enable us to sail ships now building and hereafter built under the American flag on an equal footing with the ships of other countries. The published statements that the ship subsidy bill would enable us to sail our foreign vessels under the Stars and Stripes are incorrect, as the bill specifically states that only American built ships can benefit from its provisions, and furthermore, such a course, if possible, is contrary to the whole scheme.

"We have existing only four small vessels that might benefit by the passage of that bill, and they are on the Pacific. While in the coastwise trade, in which they are now engaged, the provisions of the bill would not apply to them. After our present mail contract expires, the four American trans-Atlantic liners of the International Navigation Co. are eligible for a new contract, either under the present postal law or under any new act that might be passed by Congress."

"The consolidation," said Mr. Griscom, "will result in better trans-Atlantic service, steady and more uniform rates, a just distribution of traffic over all American and European seaports, increased lines on the Pacific coast and services to South America as traffic may be found to justify them. Having lines between Great Britain and Australia and New Zealand and intimate connections with the Far East, American manufacturers will be able to distribute their products on through bills of lading, and avoid the expense of trans-shipping where they now occur. The products of the farm will be shipped from the seaport most convenient to the point of production.

"In a word, it is intended to reduce transportation charges as far as possible, to every way improve the facilities of the company and increase its profits by economic management over the conditions of the past. To what extent these new services will be conducted by steamships built in this country, and sailed under the American flag, depends upon Congress."

The German steamship companies have not been bought outright by the Morgan interests; they enter a close business confederacy with the American and British lines; their ownership is not merged; their independence is safeguarded, subject only to certain advantageous contracts.

The foregoing is the substance of the replies made in Hamburg and Bremen by Herr Ballin, director general of the Hamburg-American line, and Herr Plath, president, and Herr Wiegand, director general of the North German Lloyd line, to inquiring shareholders of the companies whose positions entitle them to know what is being done. While not fully satisfied with these assurances, the shareholders must wait until the end of May for details of the contracts. These will then be submitted at meetings, which are to be called especially to confirm the agreements of the shareholders of the two companies.

MIRAGE OFF CAPE HATTERAS.

To few men in their sober senses is granted the privilege of seeing Cape Hatteras upside down, but, according to the statements of Capt. John H. Tawes, of the Diamond Shoal lightship, such a phenomenon was witnessed recently by those on the lightship. Capt Tawes writes: "Not only have we seen Cape Hatteras upside down, but even the ships that passed us on March 10 and 11 seemed to be sailing bottom upward. On Monday night there was a light wind from the north northeast.

I had retired early. The man on lookout between 10 and 12 o'clock p. m. was the first to see what was undoubtedly a mirage. He did not understand it at all and became very uneasy. Running below, he called me and said he though that the ship was near the beach. He said he could see the town of Hatteras all lighted up, and thought that he had drifted inshore many miles and was about to ground. I was on deck on the double quick, and, much to my surprise, saw that what he told me was true. I could see the small and large lights of Hatteras showing very plainly, and we seemed to be quite close to them. I did not know what to think of it until I took a survey of things. I wondered at first if old Davy Jones had shattered our six-ton mushroom anchor and was taking us in on the shoals. Things looked so upside down that I took my deep-sea lead to get surroundings, and was glad, indeed, to find that the good old ship was still in the channel with thirty fathoms of water between her and the bottom. The lookout man told me that he had often seen rivers of rum and mountains of sugar and dolphins chasing flying fish, but never before had he seen a light-house chasing a lightship upside down."

TOWING IN CANADIAN WATERS.

A special memorandum has been issued to customs officers at lake ports in Ontario, which mentions that complaints have been made as to the evasion of Canadian customs and coasting laws by steam tugs engaged in towing in Canadian waters on Lake Superior and other lake waters in Ontario. Customs officers are specially requested to see that the customs and coasting laws are properly observed by such steam tugs and to warn the tugs that penalties are to be enforced on failure to observe the laws and regulations for reporting entering and clearing with articles in tow and for neglect to furnish proper export entries of articles intended to be exported beyond the bounds of Canada from points in Canadian waters. Logs or other articles destined for continuous transportation by water from one port or place in Canada are to be towed only by vesels permitted to engage in the coasting trade, in other words, by Canadian vessels only. A foreign steam tug is not permitted to move a tow in Canadian waters without a report and clearance at the customs house, and then only when the tow is destined for a port or place outside of Canada, in which case an export entry for the articles exported shall be furnished. Logs and other articles transported in contravention of law in the steam tugs illegally engaged in such transportation are to be seized and the seizure reported to the department.

WHEN NIAGARA RUNS DRY.

A reception was given in honor of Lord and Lady Kelvin at New York on Monday in the hall of the Columbia Gymnasium by the University, the American Institute of Electrical Engineers and other scientific bodies. Addresses of welcome were made by President Nicholas Murray Butler, Dr. Francis Bacon Crocker, Prof. Elihu Thompson, Dr. Arthur Gordon Webster and Dr. Robert Simpson Lakeward. Lord Kelvin spoke feelingly in acknowledgment of the warm welcome extended to him. Among those present were Thomas A. Edison, Nicola Tesla, Prof. C. F. Chandler and H. D. Pupin.

Speaking of the development of the transmission of electric power which has taken place in the United States, he said: "It has been so great, so marvelous, that I hope to live to see the day the dream I have had may come true. I fervently hope to see the day when we shall have the transmission of electric power over 300 miles with a voltage of 40,000. When I first talked of that fifteen years ago I was laughed at, but with the wonderful transmission of power at Niagara Falls my dream looks to be near fulfillment in the near future. And let me tell you American people," he said, "there may be a time when the waters will flow no more over that great horseshoe, but instead there will be a beautiful growth of vegetation far more superb than any waters flowing in torrents over the precipice. Water will find its way down countless turbines spreading light and power for hundreds of miles in all directions."

The death is announced of Capt. Jas. Price, for years commodore of the old Guion line, and president of the Merchant Marine Service Association, of Liverpool. He was known as the "Grand Old Man of the Sea," and was of untold benefit to the port of Liverpool.

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NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—ILLINOIS.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGGTON, D. C., April 14, 1902.

CHICAGO HARBOR LIGHT STATION.—Notice is hereby given that, on or about April 16, 1902, the characteristic of the light at this station, inside of and near the southeasterly end of the Outer Breakwater, Chicago Harbor, heretofore reported temporarily changed to a fixed white light, will be restored to its former characteristic, flashing alternately red and white, interval between flashes 10 seconds.

GREAT LAKES GENERALLY—AMENDED PILOT RULES.

The attention of mariners is called to the following amendment to pilot rules for the Great Lakes, approved by the United States Goverment on the 7th February, 1902, contained in Circular No. 14, of the U. S. Treasury Department, and affecting vessels navigating United States waters:

Rule III.—If, when steamers are approaching each other, the pilot of either vessel fails to understand the course or intention of the other, whether from signals being given or answered erroneously, or from other causes, the pilot so in doubt shall immediately signify the same by giving several (five or more) sharp and rapid blasts of the whistle; * * *

Rule X. (First paragraph.)

Barges, "barge consorts" or canal boats in tow of a steamer shall carry the red and green side lights, which shall be placed in the same manner as on other vessels being towed [.]; and a "barge consort" not having her own anchor down, but hanging on a hawser astern of a towing steamer at anchor shall carry, in addition to the red and green side lights, a red light at the foremast head and a red light at end of main peak, or in equivalent positions at bow and stern.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN AND WISCONSIN.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD.
WASHINGTON, D. C., April 17, 1902.

ISLE AU PECHES RANGE BEACON LIGHTS.—Notice is hereby given that the structures from which these lights were shown, in the southwesterly end of Lake St. Clair, on the prolongation of the axis of the Lake St. Clair Twenty-Foot Channel, Michigan, which were carried away by ice, have been rebuilt and the lights were re-established for the season of navigation, without change, on or about April 15, 1902.

The new structures differ from the old ones only in having their daymarks white and black with the dividing line between the colors running vertically.

SUPERIOR PIERHEAD RANGE REAR LIGHT.—Notice is hereby given that a fourth-order fixed white light has been established, in place of the former post-lantern light, on the white, square, pyramidal, frame tower, with inclosed upper part, and a black octagonal lantern, recently erected near the inner end of the south pier at the southeasterly entrance to Superior Bay, southwesterly end of Lake Superior, Wisconsin.

The light is located about 1,700 feet in rear of the front light of the range, and the range guides to the entrance between the piers from the lake.

The focal plane of the light is 62 feet above mean lake level, and the light may be seen about 15½ statute miles in clear weather, the observer's eye 15 feet above the water.

By order of the Light-House Board:

N. H. FARQUHAR,
Rear-Admiral, U. S. Navy, Chairman.

BRADDOCK POINT LIGHT STATION.—Notice is hereby given that, on or about May 7, 1902, the 3½-order fixed white light at this station will be discontinued, temporarily, for the purpose of making repairs to the top of the tower and the lantern, and a fixed white lens-lantern light will be shown, 80 feet above mean lake level, from the top of the tower on its northerly face.

The station is located on the southerly shore of Lake Ontario about 2¾ miles west-northwesterly from Braddock Point.

Due notice of the re-establishment of the 3½-order light, and the discontinuance of the lens-lantern light, will be given.

DOMINION OF CANADA.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

ONTARIO.—GEORGIAN BAY.—FLOWERPOT ISLAND.—CHANGE IN CHARACTERISTIC OF FOG BELL. The fog bell maintained at Flowerpot Island light station, giving two strokes in quick succession every minute, will, on the opening of navigation, 1902, be replaced by a bell giving one stroke every seven seconds.

ST. JOSEPH CHANNEL.—RICHARD'S LANDING.—LIGHT ON WHARF.—Since the 30th of October, 1901, a light has been maintained by the government wharfinger at Richard's Landing, St. Joseph channel, in the district of Algoma.

The light is a fixed white light, shown from a square tubular lantern with reflector, standing upon a shelf placed on the southeasterly corner of the warehouse on the wharf.

It is elevated sixteen feet above the level of the water, and should be visible three miles from all points of approach.

The shelf on which the lantern stands is ten feet high, and is painted white.

LAKE SUPERIOR.—MICHIPICOTEN HARBOR.—LITTLE GROS CAP.—TEMPORARY LIGHT.—On the opening of navigation, in 1902, a temporary light will be established by the government of Canada, pending the completion of a permanent light-house, on the summit of Little Gros Cap, entrance to Michipcoten harbor, Lake Superior.

The light will be fixed white, shown from a seventh order dioptric lantern fixed upon a stand at an elevation of 50 feet above the level of the lake. It should be visible twelve miles from all points of approach by water, but will not be visible from the wharves in the harbor.

The site is on the southeast extremity of Little Gros Cap, but this projects farther south than shown on chart No. 320, as the shore at Eagle river is visible from the site clear of the southwest extremity.

LAKE ERIE.—KINGSVILLE.—FRONT LIGHT TEMPORARILY DISCONTINUED.—In consequence of damage by ice to the outer end of the east breakwater pier at Kingsville, on the north shore of Lake Erie, near its western end, it has become necessary to discontinue the exhibition of the fixed red light heretofore maintained on the pier, until repairs are made.

NORTH CHANNEL.—NARROW ISLAND.—LIGHTHOUSE DESTROYED BY FIRE.—The light-house maintained on the west end of Narrow Island, North channel, north of Manitoulin Island, was burnt down yesterday. Until further notice no light will be shown from this station, nor will the hand fog horn be operated.

F. GOURDEAU,
Deputy Minister.

DEPARTMENT OF MARINE AND FISHERIES,
Ottawa, Canada, 10th April, 1902.

The St Louis branch of the H. W. Johns-Manville Co., report having secured the contract for Pipe Covering in the new Bank of Commerce Building, Southeast corner Broadway and Olive St., St. Louis, Mo. The material used on all main pipes and rivers is Asbesto-Sponge Moulded Covering, and the breachings and hot water tank will be covered with their Magnesia. The total cost of the above contract will be close on to $1,000.

AIR WAVES.

Helmholtz showed that when a current of air warmer, and therefore lighter, was flowing above another current colder and denser the circumstances were the same as when the wind is blowing on a level surface of liquid. In both cases regular waves are produced in the denser medium, and the waves have their crests perpendicular to the direction of the upper current, says a scientific exchange. A wind that will produce water waves one meter long, will, in air currents differing ten degrees C. in temperature, produce waves from two to five kilometers in length. To water waves from five to ten meters long correspond air having a length of 15 to 20 kilometers. Such waves, whose height above the surface of the earth is not often greater than their length, are like water waves that stir the whole mass of water from the surface to the bottom. They are very frequent, but are not visible unless the lower layers of air are saturated with moisture so that mists are formed. In such a case paralel bands of clouds are produced, extending over a large portion of the sky. In a balloon ascension Herr Emden, of Munich, was able to recognize such waves and to make such measures as to show that the mathematical theory of their formation was completely verified.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co., New York, reports the condition of the eastern freight market as follows:

There is no redeeming feature in the grain situation, and as the price of cereals within the last few days has advanced somewhat, the prospect of steamers being chartered for full cargoes of grain seems to be as remote as ever. Some little business has been done from the South Atlantic cotton ports, but, as previously indicated, such tonnage has been taken principally to cover old phosphate contracts. Three steamers are reported in this issue for case oil to the east, but the vessels named simply cover old guarantees, and therefore cannot be taken as an indication of new business. There is a little better inquiry for Deal tonnage from the Bay of Fundy ports for end of this month and beginning of next month's loading, but owners are holding for a trifle over what shippers care to offer.

Our market for sail tonnage remains quiet and without any prospect of speedy improvement in the near future in consequence of the prevailing low rates for steamers.

Grain to Liverpool or Glasgow or Antwerp, 3 cents; London, 3½ cents; Hull, 4 cents; Bristol, 5 cents.

MARINE PATENTS RECENTLY ISSUED.

697,442.—Row lock. Charles H. Butts, Norwich, Conn.

697,539.—Boat. Charles S. Pruden, Rome, Ga.

697,704.—Hydraulic dredger, excavator and elevator. Gustavus L. Cudner, New York, N. Y.

697,712.—Paddle wheel. Henri Glardon, Galveston, Tex.

697,826.—Electhical steering apparatus for ships. Lieutenant Commander Bradley A. Fiske, U. S. Navy, assignor to Western Electric Co., Chicago, Ill.

697,899.—Governor for marine engines. Bradford W. Storey, Mount Holley, N. J., assignor, by mesne assignments, to the International Marine Governor Co.

Steamer and Anchored Vessel—Excessive Speed in Harbor at Night.—The steamer John H. Starin, while passing down New Haven harbor about 11 o'clock at night, near the center of the channel, which was there 800 feet wide, and at a speed of twelve knots, came into collision with the anchored schooner Gurney, and sunk her. Held, that the steamer was in fault for violation of the rule requiring her to keep to the right side of the channel, and because she was going at a dangerous speed, in view of the known fact that it was the custom of vessels to anchor in any part of the harbor, and that a number of vessels were then anchored therein, and further because, under the evidence, if she had kept a proper lookout she should have seen the schooner for a mile or more. The John H. Starin, 113 Fed. Rep. (U. S.) 419.

COMBINATIONS AND LAKE IRON MINING.

In regard to the industrial consolidations which have been made during the past three years, the mineral commissioner of Michigan, Mr. Russell, says in his report for the year. "The process of consolidation which was begun some years ago, and which reached an acute stage in 1899 and 1900, has finally arrived at a point where the greater number of the best mines of all five ranges have been consolidated in the hands of the United States Steel Corporation. A few of the independent mines remain in active operation, and these may be divided into two classes —the small properties, of comparatively trifling or doubtful value, practically all of which can be secured by the United States Steel Corporation whenever desired, by the payment of the fair prices, and a second class comprising a very few mining companies of the first rank, such as the Cleveland Cliffs, Lake Angeline, and several others. In the case of the large mines which yet remain outside of the all-embracing grasp of the United States Steel Corporation, it is eminently a case of survival of the fittest. The lines that remain independent producers on a considerable scale are without exception properties that in addition to possessing large and valuable ore bodies have been managed with great skill and prudence. The shortsighted concerns are out of business and what were once their mines are now in the hands of the 'trust.' The far-seeing people who were not satisfied to remain in a rut, but planned and acted for the future are the ones who remain in the business, and in their case they have little to fear from the gigantic corporation that so effectually dominates the iron and steel industry.

"The advent of the great steel corporation into a field where it is obvious that there will remain room for only the sturdiest or smallest of independent competitors, has naturally been regarded with feelings of consternation by the great majority of operators outside of the fold. It is realized, however, that the development of such a colossus is merely the natural outcome of the trend of industrial evolution, and nothing will be gained by grumbling or endeavoring to resist the logic of events.

"The sentiments with which the United States Steel Corporation are regarded by those interested in the Lake Superior mining industry are somewhat mixed, according to whether the company has hurt or helped the individual, but the general opinion is that only time can demonstrate whether the organization of the company inures to the benefit or detriment of the district as a whole. It is obvious that there are certain advantages, and disadvantages as well, which are inherent in such a combination of the major part of the great iron mines of the lake district.

"Among the advantages, which are no slight ones, labor should be insured steadier employment than would be possible under the old plan of many independent owners. The dominance of the United States Steel Corporation in the industrial world should also give a greater stability to the iron trade in all its branches, and it is undeniable that the iron industry in the past has been a somewhat erratic one, periods of famine alternating with those of plenty. From the nature of things it is impossible that the demand for iron and its product can remain at any constant ratio with population or wealth, but the acute phases of depression and 'booms' may be greatly modified by having the industry effectually dominated by a single management.

"The most obvious disadvantage of this combination of the leading mines in the hands of a single corporation is the elimination of the scores of independent companies engaged in the business of mining iron ore, and the appalling discouragements fronting the men of small means who desire to engage in the iron mining industry. There is still a limited field for the independent operator unbacked by millions, but it is a circumscribed one. A few men of ability as finaciers and miners can find some return for their knowledge and capital in mining the silicious ores used as sweeteners for the fine-grained Mesaba ores, and in operating small mines, becoming the gleaners, so to speak of the iron mining field. The few remaining independent corporations having large mines, experience, and capital at their command, can remain active producers on a considerable scale, but, given the aggressive policy which can alone assure success to the United States Steel Corporation, it is certain that the number of large independent producers will become smaller, rather than increase, owing to the occasional absorption of such properties by their great competitor. The attraction of gravitation, which rules in the mining as well as in the physical world, will work to the aggrandizement of the greater at the expense of the lesser bodies.

"By the process of natural selection, the United States Steel Corporation has gathered in its employ many—perhaps a majority—of the best mining men of the five Lake Superior iron ranges. They are experienced men, who have earned their advancement by hard and effective work in practically every case. For the reason that the management of the mines has been left in thoroughly experienced hands, the mining industry is moving along without friction, and the thorough systematization of the business should result in considerable economies—and in this connection may be stated that the saving of so apparently insignificant a sum as a single cent upon the cost of producing each ton of iron ore would result in a gross saving of nearly $200,000 per annum on the present total production of iron ore by Lake Superior mines.

"A disadvantage of consolidation that will present itself to all thoughtful minds is the making of 'one man towns,' of the various cities and villages where iron is mined. This disadvantage is evidently one which could and may occur. There is, however, a broadening effect about the conduct of large enterprises which makes for a wider grasp of sociological matters on the part of those in power. It must be said for the United States Steel Corporation that in the few months of its existence it has furnished steady employment at high wages to armies of men in the various mining centers of Michigan and Minnesota, and that evidences of dissatisfaction on the part of employes are few and far between. That this state of affairs may continue permanently is greatly to be wished."—From Mines and Minerals, for April.

NOTES.

In Maine a launching was marked by the throwing of a large bunch of roses at the vessel as it slid down the ways. This ceremony seems like an effort to save the good wine which is usually spilled on such occasions. Away with such innovations.

ARCHAEOLOGICAL investigations in Rhodesia, which reveal traces of extensive mining in ancient times, have resulted in the theory that the country taking its name from Cecil Rhodes was, if not Ophir, perhaps the land Havilah, "a land where there is gold," whence came the precious metals for the adornment of Solomon's temple.

WITHIN three years four shipyards have been established in Eastern Connecticut—The Eastern Shipbuilding Co., at New London, where the largest steamships in the world, for the Great Northern Steamship Co., are nearing completion; the Riverside Shipyard, on the Thames river, north of New London, where the Thames Towboat Co., owners, will build a large ferryboat and an ocean-going tug; the Holmes Ship Building Co., at West Mystic, where the first five-master built south of Maine, the Jennie R. Dubois, was lately launched; and now the McDonald yard at Mystic. Of launch building shops and gasoline motor works there have been established in this time at least a dozen.

SHIPBUILDING bounties of an extraordinary character are contemplated by the Russian Government. Particulars of the scheme, formulated for presentation to the Council of the Empire in a bill, have been made public. The object of the measure is to encourage Russian shipbuilding and its allied manufactures. The details of the proposed bountying arrangement are almost incredible, contrasting by their novelty with the conditions adopted by France and projected in the United States. The Russian Government is in the first place to advance to the shipowner by way of loan, without interest, 50 per cent. of the price of a vessel built in Russia, the loan to be paid off in twenty years. In addition to this liberal bounty the Russian Goverment will insure a vessel built within the Empire for three-fourths of her value at the perfectly norminal rate of premium of 2 per cent. per annum.

The H. W. Johns-Manville Co., 100 William street, New York, have just issued a neat pamphlet on their new "Keystone Hair Insulator," covered by U. S. and foreign patents. A number of valuable testimonials vouch for the efficiency of the manufacture.

Government Proposals.

U. S. ENGINEER OFFICE. Jones Building, Detroit, Mich., April 19. 1902. Sealed proposals for dredging, and other work required for removing obstructions to navigation in main ship channel in Detroit river, will be received here until 12 noon, (Standard time), May 19th, 1902, and then publicly opened. Information furnished on application. W. H. BIXBY, Major, Engrs. 17-20

TREASURY DEPARTMENT, U. S. Life-Saving Service, Washington, D. C., April 19. 1902. Sealed proposals will be received at this office until 2:00 o'clock p. m., of Tuesday, May 6, 1902, and then publicly opened, for the construction of a wharf for the Old Chicago Life-Saving Station, Chicago, Illinois. Specifications and drawings, forms of proposal, etc., can be obtained upon application to the Superintendents of Construction of Life-Saving Stations, 17 State Street, New York City; Assistant Inspector 12th Life-Saving District, Room 543 Rand-McNally Building, Chicago, Illinois, or to this office. S. I. KIMBALL, General Superintendent.

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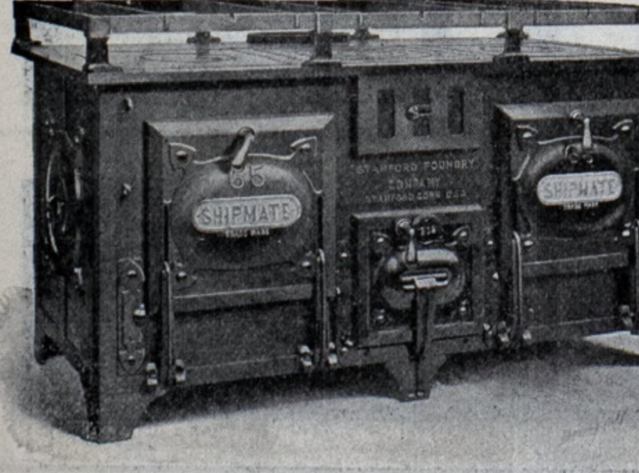

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Minnesota Iron Co.'s steamer Presque Isle.

American Steel Barge Co.'s steamer Alex. McDougall.

Lake Michigan & Lake Superior Transportation Co.'s steamer Manitou.

Bessemer Steamship Co.'s steamers S. F. B. Morse and Douglas Houghton.

American Transportation Co.'s steamers John Harper and Alex. Nimick.

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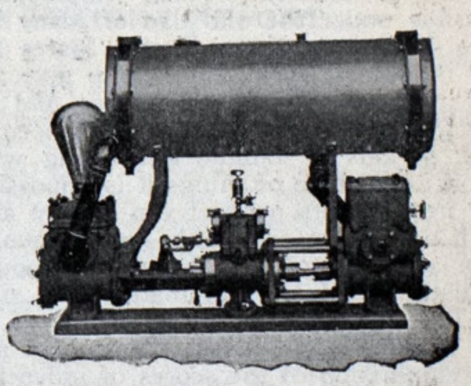

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TOLEDO.

Special Correspondence to The Marine Record.

The work is being pushed on M. A. Hanna coal and ore dock at this port.

The steamer Germanic, ore laden, went aground yesterday morning while bound up river, off the Wabash dock.

The season of the O. C. dock was opened yesterday. The machines were started up and commenced to load the steamer Pathfinder.

The big whaleback steamer Pathfinder while trying to make the O. C. dock yesterday afternoon ran aground, but was released by the tug Bickhead.

The S. S. Nation, built by the Craig Ship Building Co., for the Boston Fruit Co., of Boston, will be ready to leave Toledo about Saturday for Boston, Mass., this is a very fine looking ship, and is a credit to the Craigs.

Alvin Peters yesterday sold the lumber barge H. C. Sprague to John Ryder, of Detroit. The consideration is given as $1. The Sprague is of 316 gross tons, 145 feet long, 30 feet beam and 8 feet depth of hold. She was built in 1880 in South Rockwood, Mich., and rates B1.

Everyone here looks for a brisk and prosperous season in marine circles, as soon as the tug strike is settled. It is to be hoped that minor concessions on both sides will soon bring about amicable working relations, so that the commerce of this port may not receive a set back. The tugmen, however, are united and stand firm in their attitude against the Great Lakes Towing Co.

The finishing work on the new steel steamer Charles Beatty is being pushed so that she will be ready May 15th, the Beatty is one of the finest lumber carrying steamers ever built. She is equipped with 2 Scotch boilers, and her engines are triple-expansion, 15x25 and 42x36 inch stroke, and will develop about 1,000 horse-power, her machinery is fitted throughout with Phœnix metal and the Craig Ship Building Co. are to be congratulated on turning out such a fine ship.

The firemen on the tugs of the Great Lakes Towing Co. were called out this afternoon, and a strike is on. This walkout has not been inaugurated by the local men, but to assist the members of the organization in Duluth who are striking for higher wages. They were receiving $50 a month and board, and this was satisfactory. For a time this afternoon it looked as though the situation was critical for the company. John Nagle, who is always ready to meet any emergency, submitted a proposition to the captains and engineers of his tugs. The tugs Woods and Tuthill were laid up and the Saugatuck, Sheboygan, and Alpha put in use, seven engineers were put at work to man the tugs, the engineers doing the work of the firemen. Three engineers will work to a tug, and they will all receive engineers' wages while shoveling the coal into the furnaces. The striking firemen do not take kindly to this proposition, but they made no demonstration to-night, and say they will take action to-morrow morning. The three tugs mentioned will be in operation to-morrow.

ERIE CANAL OPENED.

Notice has been served on Buffalo canal boat owners by the state superintendent of Public Works, that the Erie canal will be opened for navigation on April 24, four days earlier than it was opened last year.

Orders were received on cargoes for the loading of eleven canal boats to load with oats and corn. On these products the rate has been slightly increased. The freight rate on oats is 2¾ cents, and on corn 3½ cents per bushel. These rates are the same as when navigation closed last fall.

No new boats will be seen on the Erie canal this season, unless they are put into service before navigation closes. Canal men say that not a boat has been built this year, and that the improvements have been exceptionally few. Only a moderate business season is expected.

State Statutes—Limitations to Domestic Vessels.—Rev. St. Ohio § 5880, creating liens on steamboats for supplies, labor, etc., furnished under contract with the master or owner, must be restricted in its operation to domestic vessels. Cuddy et al., vs. Clement et al., 113 Fed. Rep. (U. S.) 454.

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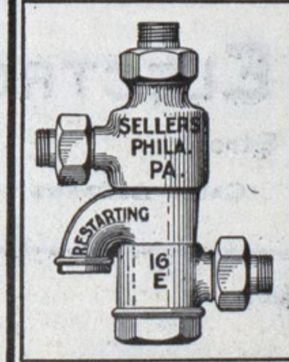

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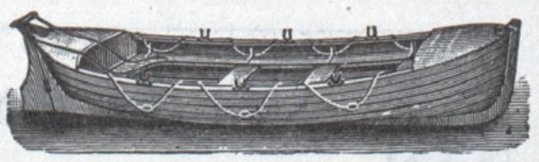

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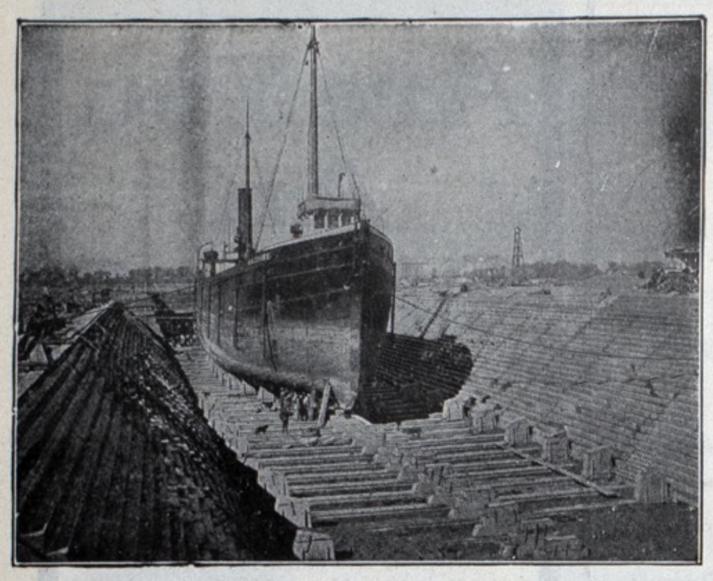

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